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[ESTABLISHED 1843.]

THOS. F. RUMBOLD, M. D.,
EDITOR AND PROPRIETOR.

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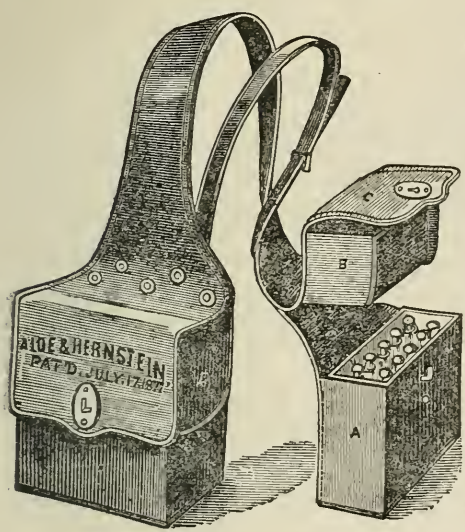

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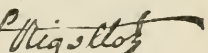

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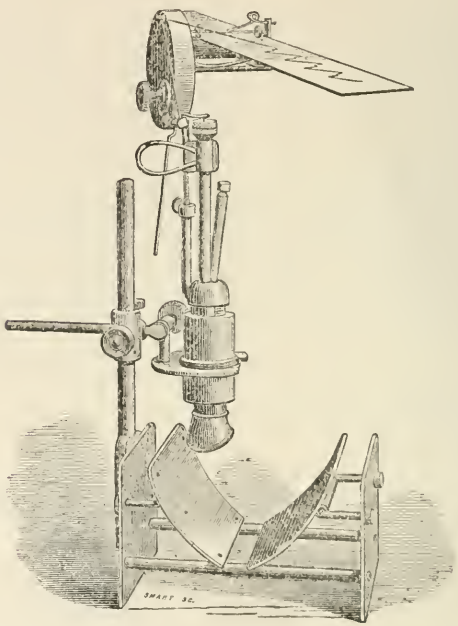

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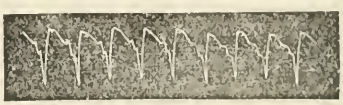

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☞The Editors hold themselves responsible for the Character of the Contributions, but not for the Opinions expressed in them.

Notice to Contributors and Correspondents.

Articles intended for publication in the next number should be forwarded one month prior to the date of publication. They must be contributed to this Journal exclusively.

Contributions of original articles are invited from all parts of the country. The publishers offer all facilities for illustration by wood cuts or lithographs of first-class workmanship, at their own expense. At their request authors will be supplied without charge with a limited number of copies containing their articles; extra copies printed separately can be furnished only at the expense of the authors. Declined communications are preserved for six months, and will be returned within that time, on application and transmission of the necessary postage.

☞Persons to whom specimen copies are sent *at their request*, are expected to remit *thirty cents* for the copy received, or *three dollars* for the year's subscription or to return it at once. With this reasonable request we are sure all will readily comply.

All communications, letters, remittances, books for review, etc., should be directed to Thos. F. Rumbold, M. D., 1225 Washington Avenue, St. Louis.

Foreign exchanges and books for review should be sent under cover to Messrs. Williams & Norgate, 14 Henrietta Street, Covent Garden, London; or to Herr B. Hermann, Leipzig; or M. Charles Reinwald, 15 Rue des Sts. Peres, Paris.

Glycerite of Animal Hypophosphites

A BRAIN AND NERVE FOOD.

Composed of the Phosphorous principles of animal brain, blood and tissues, either normally in the Hypophosphite form, or so produced in the isolation of them.

The experience of several thousand physicians who have employed the phosphorous element of brain and wheat, is that these far excel the ordinary Hypophosphites in nutriment and tonic properties.

M. F. Anderson, Licentiate of the Royal College of Physicians of Edinburgh, has shown that Phosphates isolated from animal tissues are of positive and unequivocable value in the treatment of Phthisis. See his "Phosphates in Nutrition." London. 1878.

Dr. Charles G. Polk, in his Treatise on "Tuberculosis; Causations, Lesions and Therapeutics," shows by a large amount of evidence that Animal Hypophosphites will arrest the disease in forty per cent of cases, while the officinal Hypophosphites will arrest it in less than twenty-three per cent; the Extract of Malt in four per cent, and cod liver oil in less than three per cent.

Dr. Louis Starr, of the Episcopal Hospital, Philadelphia, has found animal hypophosphites of great value in phthisis. (*New York Medical Record*, March 1st, 1879.)

We have on our file the declarations of several hundred physicians of the immense superiority of animal hypophosphites over all other remedies in the treatment of phthisis.

But the largest number of testimonials we have received have related to the efficacy of this remedy in the various forms of nerve exhaustion. As these distressing maladies are always associated with phosphatic deficiency, this remedy, by restoring that deficiency, accomplishes a cure in the absence of organic lesions, if the excessive waste of the phosphates be arrested. Decay of the intellectual powers as expressed in loss of memory, inability to fix the attention upon one subject; vacillation of character; obstinate vigilance; loss of procreative power; abnormal timidity; vital deterioration consequent upon excessive indulgence of the sexual appetite; brain strain; prolonged depressing mental emotions, and deficient supply of food strongly indicate the employment of Glycerite of Animal Hypophosphites.

The claim of the immense superiority of animal and vegetable phosphates is sustained by some of the highest authorities in the world:

Dr. Tilbury Fox, one of England's greatest physicians and world-wide known as a dermatologist, says: "There is something essentially special in the organized phosphates that have been formed by passing through a living organism, as compared with those artificially prepared. It is not the *amount*, but the *kind* exhibited which produces the good results."

M. Andre Sanson, in a paper read at the Academy of Medicine (Gazette Medicale, August 14, 1869) said, "That to promote osseous growth, the administration of Phosphate of Lime either in the shape of Hypophosphites (laboratory kind), or in that of powdered bone is unavailing. Several attemps made with these substances have never been successful. *It was because their form does not allow of their assimilation. On the contrary organic phosphates, such as are elaborated in vegetables, are real aliments.*

Dr. Routh, of London, says: "In morbid conditions, resulting from deficient amount of phosphorus in the human system, a large experience, and an extensive field of observations has proved that it is perfectly useless to attempt their removal by phospohrous compounds, manufactured in the laboratory. The re-supply must be furnished by food, rich in these compounds, as wheat bran, egg, fish, and shell fish."

Dr. Geoge Tempini says: "Nervous exhaustion, whether manifest in the functions of the cerebrum, cerebelum, or spinal cord is always attended with a deficiency of phosphorus. This deficiency can alone be restored by phosphorus, assimilated from the food."

Dr. Samuel R. Percy, in his Essay "Phosphorus," speaking of the nitrogenous hypophosphite, which is the Hypophosphite element of this preparation, says on page 658, Transactions of the American Medical Association, 1872: "Although this Nitrogenous Hypophosphite has been isolated from brain and nerves; it has, we believe, *never yet been formed in the laboratory, nor has it been used as a therapeutical agent.*

Upon hypothetical grounds alone, we should suppose it to be one of the most assimilable of all the preparations of phosphorus, because it most nearly resembles that form of phosphorus which is found to be the most active in the animal economy."

It will be noticed that Dr. Percy merely "*supposed on hypothetical grounds alone*" what Tempini, Sanson, Fox, Routh and Polk had previously stated, and squarely admits he had not used such compounds as a therapeutical agent. Moreover his statement that he has ever published in any Essay, Paper, Circular, Book or Pamphlet a working formula for such a preparation is without the slighest shadow of a truth.

COMPOSITION OF A HUNDRED PARTS:

Isolated Nitrogenous Hypophosphite of			Calcium	8 parts.
"	"	"	Sodium	6 "
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"	"	"	Iron	4 "
Glycero-Nitrogenous Hypophosphite				15 "
Free Hypophosphorous Acid				3 "
Bower's Pure Glycerine				50 "

DOSE.—Twenty drops three times a day.

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NATURE'S REMEDY.
THE SEVEN SPRINGS
Iron and Alum Mass.

In the "salts" or solids of "Mineral Water," obtained by evaporation, from the waters of a group of seven springs, in Washington county, Virginia. Notwithstanding these springs are less than 30 yards apart, no two of them possess the same medicinal properties. The mass obtained from the reduction of these waters, as analysed by Prof. J. W. Mallet, of the University of Virginia, contains *nineteen* distinct, well proportioned alkaline properties, the combination of which seem to possess unusual therapeutic virtues—as the physicians, as well as the thousands of non-professionals have learned by actual experience.

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As may be inferred from the nature and character of this remedy, it is neither a *patent* nor *proprietary* preparation, but as there are several other preparations of similar character now being manufactured in Virginia, we would advise all who order, to mention the "Seven Springs Iron and Alum Mass," prepared by Landrum & Litchfield.

The following extracts of letters from eminent physicians, who have used this Mass, will serve to show the estimation placed upon it as a therapeutic remedy. We could produce many hundreds if it were necessary and had sufficient space:

"I have found no one single remedy to yield such satisfactory results in the treatment of *Chronic Gastric Catarrh*, as the "Iron and Alum Mass." In *Chronic Diarrhœa*, in *Anæmia, Chlorosis*, and for *Chronic Eczema*, I deem it invaluable, associated with appropriate topical treatment. GEO. T. HARRISON, M. D., 221 W. 23rd St., N. Y

"In an interesting case of *Menorrhagia*, accompanied with symptoms of *General Debility, Dyspepsia, Copious Uterine Leucorrhœa* and *Retroversion of the Womb, etc.*, the experiment was sufficient to satisfy me of the vrtue of the "Iron and Alum Mass," to relieve this class of female diseases, far superior to the Dialysed Iron, now so greatly lauded as a tonic. FREDERICK HORNER, JR., M. D., Surg. U. S. N.

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CYRUS DAGGETT, M. D., Fincastle, Va.

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1878.

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BELLEVUE HOSPITAL MEDICAL COLLEGE.

City of New York.

Member of the American Medical College Association.

SESSIONS OF 1878-'79.

THE COLLEGIATE YEAR in this Institution embraces a Preliminary Autumnal Term, the Regular Winter Session, and a Spring Session.

THE PRELIMINARY AUTUMNAL TERM for 1878-1879 will open on Wednesday, September 18, 1878, and continue until the opening of the Regular Session. During this term instruction, consisting of didactic lectures upon special subjects and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students expecting to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. *During the Preliminary Term, clinical and didactic lectures will be given in precisely the same number and order as in the Regular Session.*

THE REGULAR SESSION will begin on Wednesday, October 2, 1878, and end about the 1st of March, 1879.

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JAMES R. WOOD, M. D., LL. D.,
Emeritus Professor of Surgery.

FORDYCE BARKER, M. D.,
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AUSTIN FLINT, M, D.,
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W. H. VAN BUREN, M. D.,
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LEWIS A. SAYRE, M. D.,
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A distinctive feature of the method of instruction in this College is the Union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

The Spring Session consists chiefly of Recitations from Text-books. This term continues from the first of March to the first of June. During this Session daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Regular clinics are also given in the Hospital and in the College Building.

FEES FOR THE REGULAR SESSION.

Fees for Tickets to all the lectures during the Preliminary and Regular Term, including Clinical Lectures,	$140 00
Matriculation Fee	5 00
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Graduation Fee	30 00

FEES FOR THE SPRING SESSION.

Matriculation (Ticket good for the following Winter)	$5 00
Recitations, Clinics and Lectures	35 00
Dissection (Ticket good for the following Winter)	10 00

Students who have attended two full Winter courses of Lectures may be examined at the end of their second course upon Materia Medica, Physiology, Anatomy and Chemistry, and, if successful, they will be examined at the end of their third course upon Practice of Medicine, Surgery and Obstetrics only.

For the Annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. AUSTIN FLINT, Jr., Secretary Bellevue Hospital Medical College.

TO THE MEDICAL PROFESSION.

MALTINE

EXTRACT OF MALTED BARLEY, WHEAT AND OATS.

THIS PREPARATION
Contains from three to five times the Medicinal and Nutritive elements found in the Extract of Malt.

MALTINE is a highly concentrated extract of malted *Barley*, *Wheat* and *Oats*, containing, undiminished and unimpaired, all the medicinal and nutritious principles found in these cereals. By the most carefully conducted scientific process we are enabled to offer to the medical profession a perfect article, possessing from *three* to *five times* the therapeutic and nutritive merit of any foreign or domestic Extract of Malt.

In support of our claims we invite the attention of the profession to the following points, viz.:

FIRST: In the manufacture of MALTINE the evaporation necessary to reduce it to its great density is conducted in vacuo, at a temperature ranging from 100° to 120° Fahr.; while most manufacturers of Extract of Malt resort to "open pan" or low pressure steam boiling, by neither of which processes can the extract be so produced as to preserve the Diastase, Phosphates and Albuminoids on which its remedial value so greatly depends, and the product is either of a dark color or of low specific gravity, possessing little virtue aside from the saccharine matter which it contains.*

SECOND: Carbon, Hydrogen, Nitrogen, Phosphorus, Sulphur, Iron, Magnesium and *Potassium* are essential elements in the food of man, and it is only in MALTINE, containing the combined properties of malted *Barley*, *Wheat* and *Oats* that all these principles can be found in the proper proportions; Extract of Malt made from *Barley alone* is wanting in some of the most important of these elements.

THIRD: Gluten is the most nutritious principle found in the cereals, and is the only vegetable substance which will, alone, support life for any great length of time. It is composed of three distinct nitrogenous principles, together with fatty and inorganic matters, and is analogous to animal fibrin. MALTINE contains twenty times the quantity of *Gluten* found in any Extract of Malt.

FOURTH: LIEBIG says "Wheat and Oats stand first among our list of cereals in combining all the elements in proportion necessary to support animal life. They are especially rich in muscular and fat producing elements." The only reason we use Malted Barley in the manufacture of MALTINE is that it contains larger proportions of mineral matter (bone producers,) and Diastase. It is deficient in all other essential elements.

We believe that any practitioner will readily recognize the superiority of MALTINE, and request a trial and comparison of merits with any article offered for similar uses.

* As a sure test for Diastase, and the Albuminoids a small quantity should be put in a test tube or small vial, largely diluted with Water, and heated to the boiling point, when the Albumen, if present, will coagulate, and appear in little flocculent particles throughout the liquid. If the extract remains clear, it is proof that it had already been cogulated by excessive heat, and removed by filtration during the process of manufacturing. Any heat which will coagulate Albumen will inevitably destroy the digestive power of Diastase.

The Nitrogenous constituents of MALTINE have a composition identical with that of the chief constituents of the Blood, and therefore contain nearly every element requisite for the reproduction of the human body.

MALTINE AND ITS COMPOUNDS

can undoubtedly be used with greater success than any other remedy now known, in cases of general and nervous Debility, Indigestion, Imperfect Nutrition and deficient Lactation; Pulmonary affections, such as Phthisis, Coughs, Colds, Hoarseness, Irritation of the Mucous Membrane and difficult expectoration; Cholera Infantum and wasting diseases of children and adults; Convalescence from Fevers, and whenever it is necessary to increase the vital forces and build up the system.

WE MANUFACTURE THE FOLLOWING PREPARATIONS, THE FORMULAS AND DOSES OF WHICH ARE GIVEN IN OUR DOSE BOOKS AND ON THE LABEL ATTACHED TO EACH BOTTLE.

MALTINE **With Hops.**

MALTINE, **Ferrated:**

This combination is specially indicated in Aæmia and Chlorosis, and in all cases of defective nutrition where Iron is deficient in the system.

MALTINE **With Phosphates Iron and Quinia:**

A powerful general and nutritive tonic.

MALTINE **With Phos. Iron, Quinia and Strychnia:**

A powerful nutritive, general and nervous tonic.

MALTINE **With Pepsin and Pancreatine.**

One of the most effective combinations in Dyspepsia, Cholera Infantum and all diseases resulting from imperfect nutrition. It contains three of the all-important digestive agents, Diastase being one of the constitutents of the MALTINE. We believe there are few cases of Dyspepsia which will not readily yield to the medicinal properties of the above combination, while the system is invigorated by its nurtritive qualities.

MALTINE **With Beef and Iron:**

One of the most valuable combinations in case of general Debility, where there is deficient nutrition and a deficiency of Iron in the system.

MALTINE **With Alteratives:**

In this preparation MALTINE is combined with the most valuable Alteratives known, such as Iodides, Bromides and Chlorides, and will fully meet the requirements of the practitioners in Syphilis, Scrofula and all depraved conditions of the blood.

MALTINE WINE.

This preparation contains all the medicinal and nutritive constituents of MALTINE, less 60 per cent. of the transformed starch or glucose, which renders the preparation lighter and more acceptable to some stomachs, and is recommended only in such cases.

MALTINE WINE **With Pepsin and Pancreatine:**

(*Each fluid ounce of MALTINE WINE contains* 15 *grains pure PEPSIN and* 15 *grains pure PANCREATINE.*)

We can recommend this preparation to the Medical Profession as being the most important remedy ever brought to their notice in all cases of Dyspepsia and imperfect Nutrition, when the system needs invigorating and replenishing. It will be found, we believe, a perfect remedy in Vomiting in Pregnancy, Cholera Infantum and wasting diseases of children, and in Constipation and Chronic Diarrhœa resulting from mal-nutrition. It will agree with the most irritable stomach.

MALTO-YERBINE.

(*Each pint of the above preparation contains* 13 *ounces of MALTINE,* 2 *ounces CARRAGEEN and* 1 *ounce of YERBINE.*)

With the nutritive, emolient, and demulcent properties of MALTINE and CARRAGEEN, and the expectorant qualities of YERBINE, (active principle of Yerba Santa,) we offer this preparation with the fullest confidence that it is the most perfect remedy yet produced in Chronic Pulmonary Affections, Irritation of the Mucous Membrane, Difficult Expectoration, Bronchitis, and ordinary Coughs and Colds.

The Dose of all preparations of MALTINE and compounds is from a dessert to a tablespoonful.

We also manufacture a perfectly prepared EXTRACT OF MALT, from *Barley only.* *MALTINE* preparations are sold at the same price as EXTRACT OF MALT and its combinations, and are put up in half-pint, pint and five pint amber bottles; each bottle inclosed in a folding paper box.

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WYETH'S DIALYSED IRON.

(FERRUM DIALYSATUM.)

A Pure Neutral Solution of Oxide of Iron in the Colloid Form. The Result of Edosmosis and Diffusion with Distilled Water

PREPARED SOLELY BY

JOHN WYETH & BRO.,

PHILADELPHIA.

This article possesses great advantages over every other ferruginous preparation heretofore introduced, as it is a solution of Iron in as nearly as possible the form in which it exists in the blood. It is a preparation of invariable strength and purity, obtained by a process of dialysation, the Iron being separated from its combinations by endosmosis, according to the law of diffusion of liquids. It has no styptic taste, does not blacken the teeth, disturb the stomach, or constipate the bowels.

It affords, therefore, the very best mode of administering

IRON

in cases where the use of this remedy is indicated.

The advantages claimed for this form of Iron are due to the absence of free acid, which is dependent upon the perfect dialysation of the solution. The samples of German and French Liquor, Ferri Oxidi Dialys., which we have examined, give acid reaction to test paper. If the dialysation is continued sufficiently long, it should be tasteless and neutral.

Our Dialysed Iron is not a saline compound, and is easily distinguished from Salts of Iron, by not giving rise to a blood-red color on the addition of an Alkaline Sulpho-Cyanide, or a blue precipitate with Ferro-Cyanide of Potassium. It does not become cloudy when boiled. When agitated with one part of Alcohol and two parts of Ether (fortior) the Ether layer is not made yellow.

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Full directions accompany each bottle.

Physicians will find our **Dialysed Iron** in all the leading Drug Stores in the United States and Canada.

It is put up in bottles retailing for **One Dollar**, containing sufficient for two months' treatment. Large size is intended for hospitals and dispensing. Retail at $1.50. Price Lists, etc., sent on application.

JOHN WYETH & BRO.

PEPTONIC PILLS.

Pepsin, Pancreatin, with Lacto-Phosphate of Lime & Lactic Acid.

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This pill will give immediate relief in many forms of Dyspepsia and Indigestion, and will prove of permanent benefit in all cases of enfeebled digestion produced from want of proper secretion of the Gastric Juice. By supplementing the action of the stomach, and rendering the food capable of assimilation, they enable the organ to recover its healthy tone, and thus permanent relief is afforded. One great advantage of the mode of preparation of these pills is the absence of sugar, which is present in all the ordinary Pepsin and Pancreatin compounds—in this form the dose is much smaller, more pleasant to take, and is less apt to offend the already weak and irritable stomach. The results of their use have been so abundantly satisfactory, that we are confident that further trial will secure for them the cordial Approval of the Medical Profession and the favor of the general public.

Each pill contains one grain of pure Pepsin, and one of pure Pancreatin, which is equivalent to 10 grains of the ordinary or saccharated usually prescribed and dispensed. Physicians will appreciate the great advantage of this mode of administration, the increased benefit to the Dyspeptic being due to a full and effective dose of each, freed from the unnecessary bulk, and really hurtful addition of sugar. A single pill will give immediate relief.

DIRECTIONS.—Take one pill immediately after eating or when suffering from Indigestion, Lump in the Throat or Flatulence. For children reduce the pill to powder and give a fourth or half, according to age.

JOHN WYETH & BRO.,

CHEMISTS, PHILADELPHIA.

Mensman's Peptonized Beef Tonic.

The great necessity for a fluid food that would possess *all the elements necessary for the support of the system* having been long felt by the Medical Profession, we call attention to this preparation, containing the *entire nutritious properties* of the muscular fibre, blood, bone, and brain of a healthy bullock, dissolved by aid of heat and pepsin, and preserved by spirit; thus constituting a perfect nutritive, reconstructive tonic.

It is not a mere stimulant, like the now fashionable extracts of beef, but contains blood-making, force-generating, and life-sustaining properties, pre-eminently calculated to support the system under the exhausting and wasting process of fevers and other acute diseases, and to rebuild and recruit the tissues and forces, whether lost in the destructive march of such affections, or induced by overwork, general debility, or the more tedious forms of chronic disease. It is friendly and helpful to the most delicate stomach, and where there is a fair remnant to build on, will reconstruct the most shattered and enfeebled constitution. It is entirely free from any drugs. Dispensed in 16 oz. bottes.

"DR. MENSMAN'S BEEF TONIC

"Is a complete representative of lean and fat beef, bone, blood, and muscle. It consists of all the properties which combine in the development of the animal body, which are liquefied by an artificial process, simulating natural digestion, and retaining all of their alimentary values. It contains in their perfection all the natural elements of the meat in their natural quantitative relations, without their extraneous or indigestible properties, and therefore requiring the least possible effort on the part of the stomach for its conversion into chyle, and its immediate absorption by the system.

"This Tonic is free from any drugs or chemicals, and is a great invigorator or recuperant. I have used this preparation in several cases of sickness of a character which enables me to give the most favorable opinion of its great value, in extreme sickness. Some of the cases referred to are hemorrhage of the bowels, typhoid fever, bilious fever, inflammation of the bowels, where the greatest possible prostration was present, and in which I found this meat tonic to accomplish results I could not obtain with any other preparation. It is a gentle stimulant, and allays the peculiar irritation of the stomach, which destroys the appetite in all forms of disease, when the tone of the stomach is destroyed."

"We published the above article in the November Number of 1877, and will say that we have prescribed the tonic daily to date with the very best results.—ED. MED. ECLECTIC."

THE BEST THREE TONICS OF THE PHARMACOPŒIA:

Iron, Phosphorous, and Calisaya.

We call the attention of the Profession to our preparation of the above estimable Tonics, as combined in our elegant and palatable **Ferro-Phosphorated Elixir of Calisaya Bark**, a combination of the Pyrophosphate of Iron and Calisaya never before attained, in which the nauseous inkiness of the Iron and astringency of the Calisaya are overcome, without any injury to their active tonic principles, and blended into a beautiful amber colored Cordial, delicious to the taste and acceptable to the most delicate stomach. This preparation is made directly from the **ROYAL CALISAYA BARK**, not from **ITS ALKALOIDS OR THEIR SALTS**—being unlike other preparations called "Elixir of Calisaya and Iron," which are simply an **Elixir of Quinine and Iron.** Our Elixir can be depended upon as being a true Elixir of Calisaya Bark with Iron. Each dessert-spoonful contains seven and a half grains Royal Calisaya Bark and two grains Pyrophosphate of Iron.

PURE COD LIVER OIL,

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ARTICLE XXII.

CASES OF NEURASTHENIA (NERVOUS EXHAUSTION), WITH REMARKS ON TREATMENT.

By GEORGE M. BEARD, M. D., of New York City.

The generic term, *Neurasthenia*, (nervous exhaustion) I have sub-divided into *cerebrasthenia*, (exhaustion of the brain) and *myelasthenia*, (exhaustion of the spinal cord).[1]

The details both of treatment and hygiene of cerebrasthenia, are in some respects quite different from the treatment of myelasthenia.

Both forms, however, are to be treated under the guidance of the same general principles, the minute management being different, not only for the two sub-divisions, but different for individuals.

1. For a more detailed description of the disease, I may refer to my original paper on the subject, *Boston Med. and Surg. Journal*, April 28th, 1869, and also to Erb's chapter on Neurasthenia in vol. xiii. of Ziemssen's Cyclopedia. The nature and differential diagnosis of neurasthenia were analyzed in the *N. Y. Medical Journal*, March, 1879. The differentiation be-

The general principles by which we are to be guided in the treatment of neurasthenia and allied disorders, may be condensed in the following aphorisms:

1. The treatment should, in the main, be constitutional, with special attention to local manifestations, whenever they become severe. To devote the whole attention to special and local phases, as spinal irritation, cerebral fullness, asthenopia, oxaluria, spermatorrhœa, insomnia or nervous dyspepsia is unphilosophical and can never be successful.

2. Dependence should be placed not on any one exclusive mode of treatment, but rather on a combination of various methods. Sedatives and tonics are the chief agents, among which the following deserve chief mention: Electricity in the methods of general faradization and central galvanization, arsenic in its different forms, as Fowler's solution, and chloro-phosphide, arsenite of strychnia, ergot, cannabis indica, all the bromides, quinine, iodide of potassium, digitalis, calabar bean, conium, gelsemin, belladonna, malt, oil, phosphorus, strychnine, iodoform, cimicifugin, kumyss and the salts of zinc; counter-irritation, mental therapeutics, massage, ice bags and hot water bags and hydrotherapy in the form of hot, warm and cold baths, Russian baths and douches. Out of this large *repertoire*, it is possible to find some combination that will suit the needs of every case. If I were restricted to just one dozen remedies I should chose electricity, arsenic, ergot, quinine, bromides, strychine, iron, oil, phosphorus and mental therapeutics, hydro-therapeutics and counter-irritation. If I were restricted to just one remedy, I should use electricity.

Erb suggests quinine and iron as the chief remedies. I have seen cases by the dozen, that had taken quinine and iron, judiciously and faithfully given, and who were still uncured and unrelieved. There is, in fact, no routine plan of treatment for these cases. Each case must be studied closely and carefully by itself.

3. The treatment should be frequently changed, according to the needs of the patient.

It is not possible to set the rudder, so that a ship may steer straight across the Atlantic; it must be watched each moment

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tween cerebrasthenia and myelasthenia, I first presented in an article in the *Journal of Nervous Diseases*, 1874. The symptoms of both forms of the disease, were described in detail in the *Virginia Med. Monthly*, June, 1878, and the *Journal of Nervous Diseases*, April, 1879.

and shifted with the winds and currents; it is usually impossible by a single prescription, to steer a neurasthenic sufferer over the long voyage to health.

Individual idiosyncrasies must be religiously respected, and when we find one cannot bear gelsemin or belladonna, for example, we can fall back on other remedies.

4. Medical treatment to be surely effective must be combined with hygienic treatment. In correct analysis, hygiene is therapeutics, the distinctions we are wont to draw between them being purely arbitrary. In some cases, particularly in cerebrasthenia (brain exhaustion), vigorous out-door exercise is required, and the more, within reasonable limits, the better; in other cases only very moderate exercise should be allowed; in other cases, particularly in severe myelasthenia, or exhaustion of the cord, absolute rest in bed, in quiet if not darkened rooms, is needed, if we would get in the shortest possible time the best results. The practical mistake so often made, is in treating all these three classes in the same way, shutting up those who need exercise, and exhorting those to work and travel who should be kept in bed. In diet, also, all cannot be treated alike; the reaction against the starvation theories of the last century, has induced a return to the habit of over-feeding; hence, some need to be cautioned in this regard, while others must be coaxed and tempted to eat more than has been their custom. Abstaining from starch and sugars, or using these substances but moderately, and in their place making as free use as the digestive organs will allow of fats, oils, as fish, oysters, butter, milk and cereal phosphates, is a potent adjunct to the treatment.

The special effects of this plan of treatment, when properly carried out in its details, are relief of pain and depression, improvement in sleep, improvement in circulation, improvement in appetite and digestion, improvement in body weight, improvement in capacity for muscular and cerebral toil; and these effects and signs of better nutrition appear with special variations, about in the order named; in some cases, particularly in aggravated myelasthenia, they appear more rapidly and more surely when the patient is kept quiet in the house, if not in the bed; in other cases they appear rapidly and surely, when the patient attends to his regular occupation. These effects appear, also, when only general and central applications of electricity are used, unaided by any other therapeutic procedure, but they are far

more likely to appear when combined treatment is employed.

Complications of neurasthenia that are very frequent are oxaluria, nervous dyspepsia, neurasthenia, asthenopia, impotence, spermatorrhœa and spinal irritation, and these require usually special consideration.

The following cases are designed to illustrate clinically the practical points in the diagnosis of neurasthenia, and especially the differential diagnosis of cerebrasthenia and myelasthenia, as well as some of the principles of treatment for such cases without entering into the minute details.

Neurasthenic patients treated perseveringly, according to those principles, always improve, and frequently recover approximately, if not absolutely. Cases that, if long neglected, would become permanent invalids, can thus be saved to themselves and their friends.

A young man of nervous organization, with delicate skin and fine hair, consulted me four years ago for an extended catalogue of nervous symptoms from which he had suffered, more or less, for a number of years. He prepared for me what he called a partial list of his abnormal sensations, as follows:

1. Fullness in the stomach after eating and drinking; apparently flatulence.

2. Severe constipation, varying at times.

3. High colored urine, with brickdust deposit. In all probability there was oxaluria and very likely uric acid, so often found in these cases.

4. Irresistible tendency to sleep, after eating especially.

5. Paresis of the bladder, with slight difficulty in making water.

6. Stinging and burning feeling in the urethra, at times very acute, and mucous membrane congested; burning and swollen feeling in the throat.

7. Pain in different regions of the back, at times severe.

8. Eczema in the perineal regions, with severe itching and burning; also soreness in the rectum, and in the region of the prostate; likewise eczema of the ears attended with itching.

9. Decided diminution in sexual desire and erectile power.

10. Distressing feeling in the stomach when empty; only relieved by eating.

11. Great disinclination to drink and great intolerance of fluids on the part of the stomach.

12. Remarkable dryness of the skin, with absence of perspiration in hot weather or even in the Turkish bath, unless in a very high temperature.

13. Great senitiveness to cold; feet and legs usually cold, which coldness is sometimes followed by, or alternated with, a burning sensation; impossible to sleep in a room where the temperature is below 60°.

14. Ringing in the ears, and severe pain in the head on stooping.

15. Pulse abnormally slow, frequently as slow as forty-two and forty five.

16. Unnaturally large appetite, that almost compels over-eating.

17. Cracking of the joints of the jaws, caused by dryness of the secretions.

18. Heaviness of the limbs.

Any patient consulting a physician for this array of morbid phenomena would not be likely to obtain the same diagnosis from all; more likely he would have as many different diagnoses as physicians; this was, I believe, the case with this gentleman.

The diagnosis would depend on the degree of importance that each special symptom, or asserted symptom, might take in the mind of the physician to whom the case was referred. Hypochondria would be a quite obvious diagnosis; but this was negatived by the manner of the patient and the real, objective demonstrable character of some of the symptoms. He did not appear to be hypochondriacal; but rather studied his malady with coolness and in a certain philosophic spirit.

Nervous dyspepsia would be a natural and almost inevitable solution of the difficulty; and he certainly had nervous dyspepsia. A strong and to many convincing confirmation of this diagnosis was the fact that the patient had been inclined to habitually over-eat; and, most significant of all, he had found that the majority of his symptoms were relieved or disappeared, on reducing the quantity of his food one-half, no change being made in the quality and no other treatment being used. The drowsiness would suggest to many cerebral anæmia.

Oxaluria is with many a favorite diagnosis in these cases, but in a broad study of these symptoms in all their relations we find that the urates, the oxalates when in excess, and the dyspepsia are themselves symptoms of a morbid state—a result of a common

cause—a neurasthenia, which in the present case chiefly though not entirely attacks the brain. This diagnosis accounts for the phenomena, including the facts that the dyspepsia was itself a cause and center of other symptom. The truth is that if this man had been entirely strong and tough in nerve he would never have had dyspepsia or oxaluria, and the dyspepsia, if it should arise, would not have excited so many morbid sensations in other parts of the body. Even after the dyspepsia was cured, or very greatly relieved, by dieting and management, the patient was yet quite far from well, for constipation of a most obstinate character remained. The average ultimate effect of treatment was very satisfactory.

CASE II.—In this case cerebrasthenia and myelasthenia were combined, existing at the same time or in alternation, and both persisted for a number of years. The temperament of the patient was nervous; the hair was fine and soft, and in all respects he was very sensitive. In his childhood he was troubled with general nervousness and at puberty with great sensitiveness of the gums and occasional headache. The first prominent symptoms, as is so often the case in neurasthenia, was nervous dyspepsia, which was accompanied by many distressing phenomena, such as sharp pains through the back and pit of the stomach, especially when empty; pain and cramps in the calf of the leg; great loss of flesh; a spasm was often felt in the pit of the stomach on slight mental excitement; there were also occasional cardiac palpitations, and the circulation was so poor that sleep could be obtained only by the use of extra means of keeping warm. All these symptoms appeared at the age of eighteen, and continued for two years, when, under a change of manner of life, treatment and hygiene, he so far improved that he could continue his occupation. In subsequent years he was attacked with sick-headache, neuralgia and at times, especially in the extreme hot weather of summer, was severely prostrated, so that it was almost impossible for him to walk or even move; these fits of extreme exhaustation would come upon him suddenly when riding or roaming about; it would seem beyond his power to rise from a chair in which he was sitting or to take a single step or make any muscular effort whatsoever; the brain meanwhile was tolerably strong; there was far more myelasthenia than cerebrasthenia. Later the symptoms of positive pain in the back appeared,

in the nape of the neck, between the shoulders, or on the shoulder blades, at other times in the lumbar region; this back pain was usually attended with spinal irritation, which symptom came and went from day to day, and even from hour to hour. Pressure on the chest in company with irritation of the dorsal vertebræ was often noticed, and when the lumbar vertebræ were specially affected there was considerable flatulence, which was quite annoying.

Another frequent symptom, when he first consulted me, was heaviness of the legs and arms, not amounting to absolute pain, but exceedingly distressing, and much resembling the feeling that we experience when we have just taken cold. Numbness of the hands and fingers, and disposition to fall asleep on slight pressure, particularly observed on waking up in the night after long laying upon one of the limbs or in the morning; likewise the same symptoms in the legs after long sitting, especially while riding in an omnibus or carriage or car.

Sharp, shooting, darting lightning-like pains were noticed, off and on for years; these pains were precisely such pains as are supposed to be diagnostic of ataxy, and to many physicians, taken in connection with the pains in the back, and the tenderness of the spine, would have been sufficient for a diagnosis of ataxy. More interesting still was the symptom of heat and burning and tenderness, or of anæsthesia at the bottoms of the feet, always worst when the lower part of the spine was most tender[2] and heavy (this also is regarded as one of the phenomena of ataxy); also jerking of the arms and legs, or of the whole body, just as if he was falling asleep at night. Twitchings of the muscles (fibrillary contractions) in the upper and lower extremities night and day, that naturally, according to the popular teachings, suggested progessive muscular atrophy, were felt by times in connection with the lightning pains and plantar anæsthesia.

At times, also, and not unfrequently, there was asthenopia, for which the condition of the muscles and accommodative apparatus, when examined by skilled oculists, did not fully account. This

2. In all diseases of the spinal cord *tenderness* of the vertebræ is, so far, a good symptom, suggestive of functional more than organic disease; and in cases of ataxy and muscular atrophy where some of the vertebræ are tender the prognosis is always better than when such tenderness does not exist.

asthenopia, like the spinal irritation, came and went, the attacks lasting for a few hours, or a few days, or a few weeks, according to the hygiene of the patient. Most of the above symptoms were the direct product of myelasthenia, or spinal exhaustion, with waves or rushes of spinal hyperæmia, but after a few years the brain suffered almost as much, for all the phenomena of cerebral irritation and congestion were likewise present at various stages of his malady; tenderness of the scalp at one point or many points, heat and pain at the vertex, tenderness when the hair was brushed or the hairs were even touched very lightly; all sorts of noises in the ears, explosions, buzzing, ringing, hissing, singing, constant or intermittent, attacks of injection of the conjunctiva, the clavus hystericus, feeling of fullness and pressure in the head and ears, insomnia, not absolute, but uncertainty of sleep with many dreams, sometimes bad and harrassing; drowsiness after meals or stupor. There was no marked failure of memory or as a rule much mental depression. There was sometimes a bad taste in the mouth, not clearly connected with the stomach, and disagreable subjective odors sometimes appeared. A natural result of all these conditions was great sensitiveness to the extremes both of heat and cold; thick clothing by day and many layers of blankets by night were needed; and, after meals especially, there was painful chilliness with creeping up and down the spine, or formication.

His capacity for work varied, but, in general, he was equal to quite severe mental tasks, and likewise able to walk moderately long distances. In the hot weather of summer, however, the neurasthenia was often so much increased that long walking or standing were unendurable, and were likely to be followed by pain in the back, neuralgia and insomnia; excessive use of the arms also caused pains in the back between the shoulders and on the shoulder-blades; and over-exertion of any kind was likely to bring on an attack of sick headache.

A case like the above might, in Germany, have been diagnosed as incipient locomotor ataxy, or at least spinal congestion, if not some other lesion or morbid state of the cord; and when cured, or greatly relieved by treatment, would have been reported as a case of ataxy cured; recent German literature contains a number of such cases, and they have done not a little harm to the cause of electro-therapeutics, because those who

use that mode of treatment in real ataxy do not confirm the reported German results, and hence discredit electricity in medicine.[3] It is quite probable that the cures of ataxy published by Remak were really cures of neurasthenia or at least of simple spinal congestion; similar errors have crept into the neurological literature of other countries. A physician attacked with these symptoms would, on reading the literature of ataxy, and diseases of the cord in general, naturally and inevitably conclude without any element of error from hypochondria, that he had the beginninings, if not the incurable stage, of grave lesion of of the spinal cord.; all the best authorites would force him to that painfully erroneous diagnosis. A number of intelligent physicians with these symptoms, and fearing therefore ataxy or atrophy, have consulted me during the past few years. In this case there were rushes of blood to the nerve center—cerebral and spinal plethora—without any question; but this was no more the disease, in a distinct logical sense, than was the dyspepsia or the backache or the asthenopia.

This patient has not been in later years anæmic; there has never been any evidence of cerebral or spinal anæmia. Under various sedative and tonic treatment this case so far improved that he has for a number of years been very actively engaged in an intellectual occupation and, on the whole, he was never so well as during the part year; most of the symptoms that simulated ataxy have disappeared; but on sustained over-exertion or bad hygiene of any sort they could, no doubt, all be brought on again in full force.

The following case is one of pure cerebrasthenia (brain exhaustion) and is especially interesting on account of the symptoms of agoraibetric (fear of fears); also the fact that sunstroke was an exciting cause.

CASE III.—A gentleman of middle life, a clergyman by profession, had been engaged in labors of his calling in charge of a church under circumstances that drew severely on his patience and tact; about the same time he was prostrated by exposure to excessive heat, and the sequelæ of this prostration were of a

3. I frequently meet in this city a literary gentleman in whom, many years ago, the diagnosis of *locomotor* ataxy was made by a skilled neurologist, on the strength of some of the above symptoms: the gentleman then consulted me. He had no ataxy, and is not likely to have.

character quite frequently observed, namely a multitudinous array of nervous symptoms which annoyed him for a long time. These two factors together, acting on an inherited nervous diathesis, brought on a cerebrasthenia which, when I first saw the patient, had been present for a number of years, and had compelled him to change his ministerial position for that of teaching. He complained, first of all, of cerebral attacks, analogous to sick headache, and with some of the symptoms of sick headache, but yet of quite a different character from the ordinary sick headache; there would be pain in the head and dimness of vision, with a sense of fullness, which would last for a number of hours unless cut short by the administration of one or two drops of belladonna that he found to be almost a specific.

Other symptoms were indigestion, depression and at certain seasons, more or less diminution of sexual power. There was little or no trouble in the back, and no evidence of very great muscular debility; he could walk and work with the arms; all his symptoms pointed to the brain, especially these nervous attacks which, when they were upon him, unfitted him for any labor or enjoyment. They were excited by pulpit work, and, indeed by any form of mental annoyance, or by a feeling of responsibility; even the slight task of leading an evening prayer meeting or attending a funeral, was sufficient to induce an attack.

One cerebral symptom of which he complained was agoraphobia, or fear of places, in a mild form; he disliked to travel alone on the cars, and did so, if at all, with great discomfort. There was much difficulty in coming to my office, although he lived but a short distance out of town. There was likewise some impairment of memory, but not of a very important degree. Everything in his history and symptoms indicated debility, adynamia, neurasthenia, and that this did not depend on pure anæmia, the complete picture of his morbid sensations and phenomena pretty clearly negatived. Iron alone was of little, if of any service, whereas he was certainly benefitted by various electrical and medical treatment directed to the nervous system.

CASE V.—A young man endowed with considerable skill as an inventor, had severely over-worked himself in the bad air of a factory in which he was interested, and the following symptoms of cerebrasthenia (brain exhaustion) appeared:

He complained much of attacks of vertigo coming on, or

liable to come on at any time, but especially when at work in the shop where he was first taken. So disagreeable was this symptom, that he dreaded to go to the factory, and when I first saw him, which was eight months after the first attack, he had given up going there almost entirely.

This was a form of agoraphobia, or fear of places, so often seen in cerebrasthenia, and was not associated with any evidences of myelasthenia or exhaustion of the spinal cord, for he could walk many miles daily, and was capable physically of undergoing great exertion in any other locality, except the dreaded factory, where the evil symptom of vertigo first came upon him. Another form of morbid fear from which he suffered, was what I call anthrophobia, fear of man or society; he dreaded to go into any company where anything was expected from him, where even the slightest responsibility rested upon him; consequently he avoided society. It was not the mere presence of numbers of people that he dreaded, but the responsibility that might rest upon him; he feared that the vertigo might return if he attempted to do anything in company. An audience, even a large audience, was no terror to him, provided nothing was expected of himself.

He was treated a number of weeks by nerve food, central galvanization, general faradization, and galvanization of the sympathetic, and recovered and resumed his duties.

The following case of myelasthenia was evidently of sexual origin in part, and was somewhat complicated with cerebrasthenia:

CASE VI.—In the summer of 1878, a young gentleman 30 years of age was brought to me, representing, to use the language of his physician, "a thoroughly demoralized patient." Was married and of good constitution, but had led a somewhat confined life. The symptoms of which he complained were pains in the lumbar regions of the back, fatigue on walking or working, insomnia, untrustworthiness of memory, and attacks of severe mental depression. There was a clear history of sexual excesses in an unnatural way before marriage, in a natural way since, and the reproductive organs showed very markedly in the present trouble. There was in this case, then, both myelasthenia and cerebrasthenia, the irritation both of the brain and spinal cord. The symptoms were not of very long standing, but of a

few months in the present attack. And a favorable prognosis was given, which was confirmed by the results. He was treated by general faradization, by the use of sounds to strengthen the urethra, and by local faradization both internally and externally. In the course of a month he had so far improved that he could attend to his business, and a short trip to the country added very much in his restoration, which was, I believe, very nearly absolute.

In this case the myelasthenia was not accompanied by spinal irritation. There was no tenderness of any portion of the spine, even when there was cerebral pain and aching. Erb of Heidelberg, raises the query whether this neurasthenic state of the spine, which I call myelasthenia, is not for men what spinal irritation is for women. In the suggestion raised by this query, there is a certain truth, for while both sexes do have spinal irritation—pains and weaknesses of the spinal cord with tenderness—yet this peculiar lumbar pain without tenderness, is on the whole, I believe, relatively more common with men than with women.

The next case illustrates the dependence of cerebrasthenia on uterine disorders, and also the value of rest and tonic treatment.

CASE VII.—A married lady, about thirty years of age, consulted me, with a history of cerebrasthenia, combined with a degree of myelasthenia, apparently excited in the first instance by laceration of the cervix, with prolapus uteri. The leading facts of the illness were pain and aching in the head, a certain confusion of ideas at times, dread of receiving or making calls, or of going into society of any kind. There were queer feelings in the head that were not exactly painful, but were much worse than pain, and caused real distress. All these symptoms pointed directly to cerebrasthenia, but they were complicated with a mild degree of spinal weakness, that made it difficult for her to walk to any considerable distance. There was also considerable loss of flesh and increase of pallor, accompanying the neurasthenia, and when I was first consulted in regard to her, she was considerably reduced in weight. She did not go into company, or did not enter public gatherings, and especially was averse to going to church, the place where she was first attacked with some unpleasant feelings in her head. Before coming to the city, she resided in a distant State. I advised preliminary

treatment at home, rest in bed, with tonics and good feeding. Under this regime she improved very decidedly, and in a few weeks came to the city to have treatment carried out more in detail under my own eyes. She had gained very much in flesh, and in all respects was better.

Besides the head symptoms, there was asthenopia, for which I referred her to Dr. Mittendorf, who advised glasses and galvanism. There being a history of uterine disorder, I took her to Dr. Thomas, who examined her and found laceration of the os, for which he treated her with skill and success. I no longer kept the patient in bed, but gave her a liberal supply of food, and kept her reasonably quiet in her room. I ordered every day, general faradization or central galvanization.

She was treated with cod-liver oil and other tonics. After six weeks she returned home still more improved, and from that time to the present has held her own, and is now, and for a long time has been, enabled to go about attending to the care of her family, and mingles much as formerly in society.

In this case cerebrasthenia was the chief factor, although there was a degree of myelasthenia. The chief exciting cause or starting point of the disorder was, without doubt, difficulty of the uterus. The asthenopia was, without doubt, the result, or one of the results, of a nervous causation. Neurasthenic asthenopia is indeed a very common symptom of neurasthenia. In all its forms, very many of these cases are unable to read long, or to work long at objects which require close application, as in sewing, without severe pains in the eyes, and very often pain in the eye excites pain in the head and the face, and indeed over the whole body. In very many cases, though not in all absolutely, this neurasthenic asthenopia seems to be pretty closely depending on some disease, frequently a light disease of the reproductive apparatus. These light disorders of the womb, oftentimes cause more severe disturbances of the nervous system than grave and incurable troubles. In order, however, that these light uterine affections may excite nervous phenomena, it is necessary that they should exist in a nervous constitution. The same diseases in a strong phlegmatic nature would have no general effect.

In the above case the nervous diathesis was decided. If the patient had not been of a nervous constitution, she would never have suffered, and if there had been no disease of the womb, she

would never have suffered. *It was the combination of these two influences, the constitutional and the local, that made her an invalid.*

The relation of the different forms of asthenopia to neurasthenia is very interesting. I have now under observation several cases where asthenopia and neurasthenia are associated. In two of these cases, careful examination by a skilled oculist finds very little objective exploration of the asthenopia. Both of these cases have improved and are constantly improving under general sedatives and tonic treatment, without special reference to the eyes and local electrical applications. In one case there is insufficiency of the internal recti, and under localized galvanization of those muscles the relief is immediate and remarkable; none of these cases have obtained satisfactory relief from glasses.

The following case was one of almost pure myelasthenia, exhaustion of the cord, with tenderness of the vertebra and general hyperæsthesia, and is of special interest as illustrating the value of the rest treatment in combination with electricity and tonics.

CASE VIII.—A young married lady came under my care in the autumn of 1877 for the following group of symptoms:

1. Spinal irritation of a very marked character; the tenderness extending at times the entire length of the spine; at other times confined to the points between the shoulder-blades and the middle lumbar region, and especially the coccyx.

2. Attacks of headache, usually frontal, but sometimes extending all over the head.

3. Feeble appetite and digestion; attacks of nervous dyspepsia.

4. Asthenopia, making it impossible to use the eyes for any considerable time in reading or fine sewing.

5. Poor circulation, with coldness of the extremities.

6. General hyperæsthesia or tenderness of the entire surface of the body, particularly on the bones.

7. Great muscular debility, walking, standing and especially going up stairs very difficult and painful. The pain and aching in the back were always brought on or increased by any physical exertion requiring the use of the lower limbs. In the arms was a similar weakness, so that utter powerlessness followed any strong effort at lifting or carrying.

8. Unusual sensitiveness to vibrations; traveling on the steam cars or even on the horse cars—the easiest of all modes of

locomotion—causing extreme distress. Consequently in going about she was accustomed to take soft pillows or air bags to break the force of the vibrations, but even with all precautions traveling was a source of dread, and she always chose the boat to the cars. Riding in an ordinary carriage was intolerable; a short removal made necessary by a change of the plans of her husband, put her back for a long time, and mainly because she was obliged to ride a short distance in a carriage.

Here was a case of myelasthenia or exhaustion of the cord with the symptoms of spinal irritation, the brain being but slightly affected. The memory was good; the intellect clear; the power for brain work was far in excess of the power for any form of muscular work; and although there was considerable headache, yet it was not accompanied with symptoms of profound brain exhaustion. The backache, the asthenopia, probably, the coldness of the extremities, the muscular debility and inability to stand or walk or to bear the jolting of travel, all point to the spinal cord as the center where the neurasthenia chiefly concentrated itself. For this case various diagnoses would have been given; it would have been called spinal irritation, or anæmia, or the uterus would have been charged with the responsibility of all the symptoms. There was the symptom of spinal irritation; there was anæmia; there was not any sign of uterine disorder to account for the phenomena. Before, as after marriage, the patient had been nervously sensitive; a miscarriage appeared to make her worse in some respects, but introduced no new symptoms. The spinal irritation was very easily relieved by treatment, but that did not greatly relieve the general condition of which the irritation was but one of the many expressions, and the anæmia did not give way to iron.

This case was treated with positive benefit though not absolute cure by a combination of general and central electrization, massage, rest in bed, liberal and varied diet, and various internal medications; ice bags and hot water bags were also used. Her getting out from the bed was very gradual, and after a course of treatment extending over three months she was able to take a long trip to a distant country.

REST AND SECLUSION.—The treatment of certain cases of nervous diseases, functional and organic, by putting the patient in bed and enforcing inactivity for a limited period, is sometimes

one of the best possible means of relief and cure. One of the great benefits that an attack of acute disease, as typhoid fever, confers on a neurasthenic patient, is the absolute rest it compels. Improvement in flesh is very soon seen, and in time there comes also improvement in strength, which, when carefully husbanded and directed, may become a permanent addition to the patient's stock of vitality. The philosophy of this rest treatment is somewhat complex, the rest or abstinence from physical and muscular exertion being only one of the factors that contribute to the excellent results that follow it. As this method of treatment was formerly used, evil as well as good might be accomplished, for the confinement in dark rooms, the low diet, the abstraction of blood with which this rest treatment was often associated, tended to pull down rather than build up the constitution, and in the times of our fathers cases of dyspepsia even were managed in this way with the effect of weakening the already weakened frame. But rest combined with proper nourishment, passive exexercise and the judicious and varied employment of sedatives and tonics, especially of electricity, in the modes of general faradization and central galvanization, is, in many cases of myelasthenia, exhaustion of the spine, superior to any other plan of treatment, since it really includes all the best systems of past and personal experience. It is a method that has, however, its difficulties, disadvantages and failures, but in a certain class of nervous diseases, the benefits far over-balance the trouble and sacrifice.

Among the difficulties are the expense, the prejudices and fears and whims of friends, and the apprehension on the part of the patient that confinement is a more burdensome thing than it is really found to be by those who give it a fair trial; but when these preliminaries are satisfactorily arranged and the sufferer has once put herself under treatment, all the rest is comparatively easy; in much shorter time than one would suppose, she becomes accustomed to the restraint; the appetite under the stimulus of electricity, the very best of tonics, and tempting food, is often much better than when in active duties, and in a few days the fat begins to roll up in the face, and subsequently over the body.

One of the practical difficulties, for the solution of which no mathematical rule can be given, is the time required for this rigid confinement, and the method of bringing back the patient

to ordinary life. In this respect, as indeed in all respects, each case must be treated for itself under the guidance of general principles.

The seclusion from friends on which Dr. Mitchell so earnestly insists, I do not always find to be necessary; some of the best possible results I have secured when the patient was under the direct care of relatives and friends. In the use of this, as in the use of all plans and devices for overcoming chronic disease, there can be no routine, cast iron law; each case is a different case from any other, with different symptoms, history, idiosyncrasies, antagonisms and affinities. In deciding the question whether a patient is or is not to be removed from home and friends, the character of the friends themselves is to be considered; if they are unduly emotional, superstitious and demonstrative; if they constantly burden and weary her with oppressive talk and attention, then removal may be indispensable, without which all treatment is thrown away; the constant turning of the patient's mind on the body by conversation, consultation and sympathy in its various modes of expression counterbalancing many fold all possible therapeutic agencies; oil and water are poured on the same fire, a gallon of the one to a gill of the other. When such cases are taken out of these really hostile influences and carried in any direction and kept resolutely apart from those who knew and love and pity them, they are so far delivered from one of the worst possible exciting causes of functional nervous disease, and an opportunity is given for the forces of nature and medication to work together without friction toward recovery. In all forms of disease mental therapeutics is often more useful than any other kind of therapeutics, and this forced seclusion is a powerful and legitimate means of acting on the mind; it compels the patient do what they are far too much disposed to do of themselves, that is remain inactive, and this systematic inactivity in time tends to cure the desire for inactivity; they seek for a change, and long for exertion, while the rest, electricity and tonics give them strength to attempt it.

A great factor in these cases is the therapeutic power of a radically new impression of any kind; hence the real advantage, in some cases, and at certain stages, of a change of doctors, even from a superior to an inferior, or at least a radical revolution in the mode of treatment.

This same question of seclusion—restraint or non-restraint—

comes up in the management of insanity, especially in the early stages of the milder forms of melancholia. In these cases it becomes necessary for the physician on whom the responsibility of the case rests to make a diagnosis of the character of the patient's friends and surroundings before deciding the very important question of restraint or non-restraint. There are cases of which I have seen in my own practice, where the best results, satisfactory both in rapidity and permanence, are secured by treating the patients at home in the midst of her friends who care for her and execute the directions of the physician; and there are cases where speedy removal is the only wise course.

Few things in my professional experience have been more pleasing than the permanent results that I have been enabled to obtain in severe and long standing cases of hysteria, hystero-epilepsy, neurasthenia and allied affections in nervous women when treated at home, or among relatives who were sufficiently sensible to know how to co-operate with the required treatment. I recall in particular an aggravated case of hysteria with convulsions, hallucinations and profound depression, that was taken directly to the residence of a relative and kept there for a number of weeks under electrical and other treatment, until, as a reward of perseverance, she was permanently restored, and to this day remains well and active. This patient was not allowed to see any one but a relative, strangers being systematically excluded whenever they called, and yet a more delightful result could not have been expected from any plan of treatment, and is, I am sure, rarely experienced by those who have to do with cases of this kind.

The main reliance in this case was general faradization and central galvanization, very little local or medical treatment being used. Some years ago I had under care a young lady who was so thoroughly neurasthenic that she could scarcely move about the house, the result mainly of over-work and confinement in a routine occupation. She was treated in the house of a relative, and although the symptoms were unusually obstinate, and a most extraordinary sensitiveness to medicine of nearly all kinds made it impossible to use the leading sedatives and tonics, yet she gradually improved, and last year I saw her as a bride in sufficient health to walk two or three miles and with much increase of flesh.

In both of these cases there was some uterine disease, but not

enough to account in any considerable degree for the symptoms; one was neurasthenic and the other was neurasthenic and hysterical, and both belonged to the class of patients for whom seclusion and forced rest are prescribed.

Traveling as Medicine.—The fashionable method of treating all forms of functional nervous disease, is by recommending a trip to Europe. Even where no diagnosis is made, or where the vague expression "general debility" only is used to indicate the morbid condition, this prescription, "a trip to Europe," is indiscriminately ordered.

For years it has been the custom when the patients complained of any or all of these symptoms, that I have described under neurasthenia, to fall back on the recommendation of travel as a panacea, adapted alike to all stages and sexes. If we do not know what is the matter with the patients, we assume that his symptoms are imaginary, or if not imaginary, trifling, and that they require no medicine, no special medical treatment, no careful medical observation, no well directed hygiene even. A long vacation, a protracted absence, is supposed to be a specific for all such conditions. In some cases this prescription does work most excellently; in other cases its results are negative, and in other cases evil, and only evil results are obtained.

I have constantly under my care cases of both forms of neurasthenia, who have spent months and years abroad, under advice of physicians, not only without benefit, but in some instances have been positively injured. Cases of myelasthenia, especially, are very liable to be made worse by the fatigue of travel, by the discomfort of absence from home, by the laborious and oftentimes wearisome and exhausting tasks of sight-seeing. Many are worn out in the picture galleries, and in mountain climbing, and must return home to rest and recover from the effects.

Traveling, indeed, is no more a specific than any other medicine is a specific. Indiscriminately prescribed, especially without making a differential diagnosis of the case, it is unscientific. It is one of the best remedies; it may be one of the worse remedies; it may be a specific for a certain case; it may be precisely the most injurious thing that can be suggested for another case. Almost all medicines are apt to be used indiscriminately. But I doubt whether there is any medicine which is

more indiscriminately used than travel, especially in the form of a trip to Europe. In the cases that are supposed to be nervous prostration, the very best results are oftentimes accomplished in both cerebrasthenia and myelasthenia when the patient remains at home, or near at home, or at least in his own country, with short vacations. And oftentimes there is no need of breaking up business or interfering with the plans of life. Not unfrequently cases of this class progress more satisfactorily when their minds are occupied with their favorite employment, even though sometimes they may be overtasked in it, and become at times over-wearied and excited. In the case of a prominent man that I now recall—cerebrasthenia complicated with myelasthenia—who spent a whole year abroad, and who consulted me on his return, it was found on resuming the topics in which he was especially interested, that he was much better than when idling his time in foreign lands.

ARTICLE XXIII.

THE CURE OF HEMORRHOIDS BY THE HYPODERMIC SYRINGE. By EDMUND ANDREWS A. M., M. D., Prof. of Surgery in the Chicago Medical College.

In a former number of this JOURNAL I published the secret method of certain itinerant "pile doctors," and asked for information from all physicians who had any knowledge of the practical results of the treatment. This request, supplemented by other inquiries, has brought me responses from about 300 physicians, and given me more or less knowledge of the results of over 3,300 cases treated by the new method. From the material thus collected I am able to present the following history:

In the year 1871, there lived in the village of Clinton, Ill., a physician named Mitchell. His practice being small, he employed his superabundant leisure time in planning a new treatment for hemorrhoids. He was a good thinker and soon conceived the idea of charging a hypodermic syringe with equal

parts of carbolic acid and olive oil, and injecting the contents into the hemorrhoidal tumors. He also devised another and totally different plan, which was to take two large needles with triangular points, liked those used by saddlers, and then to pick the piles to pieces, little by little with the needles. Mitchell himself is said to prefer the needle operation, and several others have adopted it from him, but the plan of injections has proved by far the most popular with others, and has recruited a surprising number of operators. The secret was sold from man to man, and the price and the enthusiasm rose simultaneously. "State and county rights" to practice it were vended at high rates, reaching in one instance, the sum of $3,000. Regular physicians abandoned their practice, and even mortgaged their property for money to buy the secret and set themselves up as itinerants, while ignorant laymen joined in the rush, until they filled the whole West with their clamor, and at last whitened the sands of the Pacific shore with their handbills.

The chief managers of the business settle in the larger towns in the winter, where they advertise and practice; but as spring advances, to the time when the wild geese begin to fly, they feel the migratory instinct and go from place to place, selling the secret to all who will buy it, and operating meanwhile on the people of the farms and villages. In this way they have treated more than 10,000 patients in the States west of the Alleghany Mountains. A secret so extensively sold always gets out. Three years ago I discovered and published it, thus putting a check on the business of selling, and inducing large numbers of the regular profession to try the plan among their patients. These physicians have furnished my best information, but I also opened communication with the principal itinerants themselves and induced several of them to come out frankly and tell what they knew, and by checking one statement against another was able to sift our pretty well the few attempts at deception.

Mitchell's original plans have excited widely extended thought and experimentation among his followers, so that his two methods have branched out into numerous varieties. The original injection seems to have consisted of equal parts of crystalized carbolic acid and olive oil. The operator exposes the piles to view and smears the anus with an ointment to prevent smarting in case the fluid should chance to drip. He then takes a sharp-pointed hypodermic syringe and slowly throws a

few drops into one of the piles. The pipe is left in the puncture a few moments to prevent the fluid from running out, and to allow it to become fixed in the tissue. The pile turns white in the most successful cases and withers away without pain, suppuration or sloughing. Only one pile is treated at a time, and about a week is allowed between the sessions until all are cured. The itinerants often advertise their methods as "painless," but as a matter of fact only about one patient in four gets anything like exemption from pain. Most of them suffer a sharp temporary smarting, and a few have a terrible and prolonged agony. The majority are cured, however, without interrupting their business.

The original plan has sprouted into numerous varieties. Instead of using olive oil as the excipient, many prefer glycerine. Then every operator has his favorite degree of strength. Several claim that the stronger the fluid the better it is, and actually inject crystals of carbolic acid melted by heat, while others use mixtures varying in strength all the way down the scale, until we find Dr. Weirs, of New York, experimenting with one part of acid to twenty or thirty of the solvent. The dose injected varies in like manner. Some advocate great caution and only put in from one to three drops, while others cram the pile with a syringeful and seek to make it suppurate or slough. I find two men using creosote instead of carbolic acid. Several add anodynes, such as morphine, chloral or iodoform. Ergotine is also a favorite injection, and a great number of mixed formulæ have been imparted to me, some of them containing five or six ingredients. Mr. Colles, of Dublin, injects muriated tincture of iron; Dr. Hill, of Bloomington, Ill., and Dr. Drake, of Hastings, Mich., use the iron persulphate, while others have tried tannin, chromic acid, tinct. of iodine, etc. One intelligent itinerant, who writes in a straightforward and manly tone, says he has experimented with almost every coagulating agent in the vegetable and mineral kingdoms, and his preference is for carbolic acid, used as strong as possible. He adds the following remarks: "The difficulty with all remedies except carbolic acid is the suppuration being limited to a small portion of the tumor, or, like the preparation of iron, causing the tumor to swell and become very painful. Carbolic acid is, so to speak, used up in cooking the blood throughout the entire tumor. The appearance of the pile in from five to twenty seconds show such to be the

fact. Suppuration takes place in three or four days with sloughing. No danger of hemorrhage."

The results of these numerous methods of treatment may be summed as follows: In the first place the needle operation has never become a favorite. I can learn of only five persons who employ it. The following case was probably treated in that way: The patient, a plethoric man of 45 years, went to a quack in Chicago, and as a result the varicose hemorrhoidal vein was widely opened. Blood gushed out freely, but after some time was arrested in a manner not clearly understood by him. He then returned home in great agony, and summoned his family physician, by whom I was called in as counsel. Removing sundry cloths and compresses he found a large opening in the vein plugged with a vial cork. The quack, apparently, had torn open the walls of a dilated vein, and, being driven to his wits' end by the gush of blood, finally concluded to cork up his patient like a demijohn.

My informants agree that the injection method seldom fails to cure the disease, but report some serious disasters. The writers know of about 3,304 cases treated in their vicinity by these methods. Although they cannot always give exact numbers and details, yet the circumstances are such, that a case of rapid death from the treatment could not be concealed, while minor troubles, such as pain, sloughing, etc., might frequently escape their notice. Probably the list of deaths is pretty complete, while figures giving the minor accidents are too small.

LIST OF ACCIDENTS.

Deaths	9
Embolism of the liver (suspected)	8
Very dangerous hemorrhage	5
Less dangerous hemorrhage	5
Carbolic acid poisoning (recovered)	1
Sloughing (generally, but not always confined to the piles.)	23
Severe inflammation	10
Violent pain	83
Stricture of the rectum	2
Permanent impotence	1
Long sickness in bed (two weeks to six months.)	6
Relapsed	7
Failed to cure the piles	11
Sundry other accidents	12
Total	183

The cases of sloughing and suppuration of the piles are innumerable. Some itinerants use strong injections with the express purpose of producing these results, deeming that the plan of causing atrophy without suppuration lacks certainty and permanence.

This list shows that while the deaths are so few, that the risk is no greater than in other modes of treating piles, yet the minor accidents are very numerous. The imperfection of the reports renders a thorough study of the accidents impossible, but the following information has been gleaned. One of the deaths was caused by inflammation, followed by immense abscesses, erysipelas and pyæmia. The patient died on the fifth day. Another death apparently resulted from embolism of the liver. That viscus nearly ceased its function; the stools were light-colored and scanty; the skin yellow, and all the lymphatic glands of the groins, axillæ and neck became enlarged. A full dose of calomel always brought temporary benefit, but no permanent improvement. The patient lingered along, and died unrelieved about one hundred days after the operation. The next fatal case was that of a man 84 years of age. The person who injected his pile, said it was "very large and very deeply-seated." It was suspected that he mistook the enlarged prostate for a hemorrhoid. Be that as it may, the patient was attacked with violent pain and retention of urine, and although relieved by the catheter, died on the third day. There is no clear proof that the prostate was injected, or that the result would be fatal if it were.

The fourth death was also attributed to injecting the prostate, but no symptoms were given.

The five remaining deaths are so vaguely reported, that no particulars can be given. It is possible that three of the reports refer to the same patient, in which case the whole number of deaths is only seven. This number of fatal results in 3,304 cases, treated often in the most reckless and ignorant manner, is certainly not large, and tends to show that the injection method is as safe as any other, so far as life is concerned.

The same relative immunity appears respecting hemorrhage. Five dangerous cases of it are reported, but in most, if not all of them, it occurred from the foolhardy practice of allowing the patient to take at once long rides and walks, when he should have been in bed; but even with all this imprudence, the hemorrhagic cases are fewer than are found after the use of the clamp and the

ligature. Allingham reports more instances of hemorrhage after the ligature than I can find among all these cases of injection.

The chief fear of the profession respecting this operation, has been that embolism might occur. The two lower pair of hemorrhoidal veins are small, and send their blood through the iliacs to the heart, but the upper pair is larger, and transmits most of the blood of the hemorrhoidal plexus through the inferior mesenteric vein to the liver; hence, we should expect that the embolism, if it occurred at all, would be of the latter organ. The facts correspond to the suggestions of the anatomy, for not a single case is reported of a sudden death, such as proceeds from clots swept to the heart and lungs, but there are eight instances of suspected embolism of the liver.

Only one of them died, and there was no post mortem examination, so that positive proof is lacking. The first case was the death from hepatic trouble described above; the second was marked by abscess of the liver, but recovered. In the third case there was severe pain in the liver, commencing one hour after the operation. After some time, this was relieved, but the physician feared to repeat the injection. In the remaining cases, it is reported that the injections were followed by the hepatic disease, but no fatal results are included. In a portion of these cases, the liver trouble may have pre-existed as a cause of the piles, rather than a result of the operation. On the whole, it does not appear that there is any decided danger of embolism, if the case be carefully managed. It may be mentioned, that Dr. Whitmire of Metamora, Ill., practices tamponing the upper part of the rectum for twenty-four hours, to prevent the emboli from moving in that direction.

Sloughing and suppuration of the piles generally follows large and concentrated injections, but not the small and dilute ones. A few cases only of extensive abscesses here occurred.

Pain is the most frequent of all accidents; the verge of the anus is extremely sensitive, and injections near that circle are liable to produce fearful distress, but above the verge the sensibility rapidly diminishes, so that much less suffering is entailed by the injection of internal than by external piles. In about one-fourth of the patients, the pain is very slight. Dr. Weirs, of New York, injected two series of cases, one with strong, and the other with weak carbolized solutions, using in the latter only one part of carbolic acid to ten, twenty or thirty of the excipi-

ent. He found that the pain and the abscesses followed the use of the strong injections, but did not occur when weaker ones were employed.

The remaining accidents of the list are not peculiar to this operation, nor greater in number than occur in other methods. If we consider that the operation was a new one, with its conditions of safety unknown, and that many of the operators were ignorant blockheads, with no qualifications for the business but a bottle of carbolic acid and a hypodermic syringe, and with no idea of efficiency except to distend the hemorrhoidal plexus of veins with all the liquid caustic they could get into it, we shall not be surprised at discovering a few deaths and a number of minor accidents. Had the method itself not been an unusually safe one, they would certainly have slaughtered their scores of victims, for the difference is world-wide between their ignorant injecting and cautious scientific surgery.

If the following rules be observed, I believe the method will prove less dangerous than any now in use:

1. Inject only internal piles.

2. Use at first dilute solutions; stronger ones only when these fail.

3. Treat one pile at a time, allowing four to ten days between the operations.

4. Inject from one to six drops, smearing the membrane with cosmoline to protect its surface against dripping.

5. Confine the patient to bed the first day, and subsequently in case any severe symptoms appear. Prohibit any but moderate exercise during the treatment.

Piles are subject to possible hemorrhage under all forms of treatment as well as when left without treatment. In cases where the bleeding vessels cannot be found and promptly controlled, Allingham recommends the following method of using the tampon: He takes a good-sized sponge and fastens to its center a strong double string. (He prefers a bell-shaped sponge inserted with the open end downward). Having pushed the sponge up the rectum some inches beyond the bleeding point, he fills the parts below it with cotton dusted with powdered alum or persulphate of iron, and ties a stick across the finished tampon with the double string. By turning the stick like the handle of a gimlet, he twists and tightens the string, forcing the tampon firmly against the sponge and causing it to spread later-

ally and to compress the bleeding vessels. He advises to put in a large catheter with the tampon to allow the escape of flatus. By the help of opiates the tampon is often tolerated several days.

My final conclusion is that the wild itinerants of the prairies have really made a valuable addition to scientific knowledge, and that the cautious injection of hemorrhoids with carbolized solutions will remain one of the permanent operations of surgery.

The number of physicians who have contributed to this investigation is so large that it is impossible to give separate credit to each one, but I return them collectively my thanks, and especially to Dr. J. Burry, of Raub, Ind., who was kind enough to write to over thirty medical men in my behalf.

The literature of the subject is very scanty, and is mostly covered by the following references:

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ARTICLE XXIV.

REMARKS ON THE REPORT OF THE ITALIAN COMMISSIONERS IN LUNACY ON THE MENTAL CONDITION OF PASSANANTE. By JOSEPH WORKMAN. M. D., of Toronto, Canada.

A correspondent of the *Lancet* has furnished that journal with a translation from the Italian of the above document, which was the production of Profs. Tamburini, Buonoma, Tomassi and the Senator Verga. These commissioners were unanimous in their finding, "that the plea of insanity raised in Passanante's behalf is invalid, there being no evidence of *melancholia*, or indeed of any mental disease whatever, in the would-be regicide."

It might be interesting to know what are the branches of science in which the three professors were engaged, and even more so to be informed as to their *practical* knowledge of insanity in its wide range, and under its almost infinitely diversified phases and degress. We are told that Senator Verga is the author of the celebrated monograph on the "Madness of Tasso."

We are very much inclined to presume that the alienistic prestige of the venerable Senator constitutes no trivial proportion of the aggregate qualifications of the commission, for the very difficult and serious task devolved upon them. That a man of superior literary culture, and rich imaginative faculty, may write very attractively, and perhaps very complacently, on the madness of a great poet, potentate, or statesman, and yet have but a very meagre acquaintance with the Protean forms, even of fully developed insanity, and unspeakably less with those penumbral shadings, which, in many cases, long antecede the period of mental eclipse, we may not dispute.

It would be perhaps no less unjust than hazardous to pronounce the finding of the Italian commission erroneous. Their belief in the perfect sanity of Passanante may have been in strict accord with the actuality of his mental condition, and as the hangman has not been called in to ratify their verdict, the culprit may, before shaking off his mortal coil, afford gratifying proof of its justice; but it is not outside the range of possibility,

that his mental culmination may yet but too convincingly demonstrate its fallacy.

The commissioners would appear to have gone through their work in no merely perfunctory manner, and to those who are charmed with a parade of high sounding technicalities, the ornamentation of their deliverance by the sectional titles, of *Anthropometry*, *Psychical Functions*, *Physiognomy*, *Function of Relations*, *Electric Algometry*, *Functions of Vegetative Life*, fortified by the various other scientific significants, can hardly fail to prove the speculative competency of the psychometric explorers who undertoók the inquisition of the mental framework of Passanante. They commenced their work at the summit, and thence glided down gracefully to the nether regions of their *terra incognita*.

They went about the job with all the necessary implements, just as Sternes' critic did when taking the dimensions "of the new book which all the world was making such a rout about;" but they have been more fortunate in their measurements of lengths, breadths and angles than that accomplished bibliometer has been represented by the author of the immortal *Dead Ass*, for they have found the *would-be regicide's* cranial and facial dimensions all O. K. Seeing that they have given us no less than fifteen measurements of these regions, we are quite unwarranted in imagining that they failed in exactitude in this division of their work.

We doubt, however, whether any of the specialty of alienism will derive much useful instruction from the *data* here presented; and it is by no means probable that an expert witness who would enter into such minute details in any court of justice in Europe or America, would escape the ridicule of the entire audience.

Passing, therefore, from this section of the report, let us see what may be presented in its other parts, indicative of reliable mental soundness. We shall reproduce between inverted commas, a series of significant phrases, to which we invite the serious consideration of every reader who has made the study of mental health in both its normal and abnormal conditions, a subject of extended practical investigation, and if he decides that the adduced facts point not more significantly in the direction of insanity than of sanity, we can only say that his interpretation of them does not concur with ours. Be it understood that we use the words "in the *direction* of insanity," with the deliberate object

of admonishing the reader against the conclusion that we regard the case of Passanante's mentality as one of actually or fully developed insanity. We do not, however, hesitate to affirm that the language used by his examiners, if appropriately employed, is unmistakably significant of *germinal* mental alienation. He is represented as a person of "one-sided *ulterior* culture of mind." He is credited with "utopianism of ideas." "Productive activity of ideas normal, or if anything, *uncommon*." "*Rapidity* of perception and judgment notable;" "Promptness and acuteness of his answers; his ideas and the expression of them superior to his condition—often elevated." (Note his condition was that of a *cook*.) "Association of ideas, regular and *rapid*;" attention *keen*, and he passes with equal intensity *from one subject to another*;" clothes his ideas in *imaginative* guise;" is profoundly *convinced of his own ideas*," and he "declares his readiness to *bear witness* to them *with his life*." "Of himself and his own concerns, but little heedful." "*Vanity* rather strong in thinking to have his *amorphous* writings printed."

He says, "where the learned loses himself, the ignorant often comes out triumphant." "Love of parents, and good will towards friends, are in his eyes sacred duties." "The religious sentiment has been *highly* developed in his youth, when he was *fervent* in his religious observances." "Inveighs against vices and abuses." "He excused his crime by saying, "he wanted to avenge the people," and "ideas ought to be *baptized in blood*." "The instincts are feebly developed." "Self-conservation costs him no effort, his speech is ready, easy and *quick*." "Physiognomy rather mild, is often smiling; the look, however, is *sharp*." "From the commencement of a question, he divines the sequel, gives a complacent smile, which sometimes passes into a true *ironical simper*." "His gait is *erect* and *independent*, he reads almost constantly, writes often, and divides into verses, as the Bible;" says "he does not mind death, but would rather *not* pass for a lunatic; what matters life to me, I want my principles to be maintained."

"He often changed masters, but always in order to find a better." "The *mania* of his peculiar ideas does not absorb all, nor at all times, his thoughts; his propensity to put in writing the ideas which frothed up in his brain," etc.

The foregoing are but a limited selection of phrases, scattered over the entire surface of the report, which seem to our mind to

comport very defectively with the decision of the commissioners, that "the plea of insanity raised in Passanante's behalf was invalid." We have *italicized* those words which have seemed to us most significant of mental abnormality. We are convinced there is not an experienced asylum physician in America, who will fail to recognize in the picture drawn by the commissioners, lineaments and colors of mental unsoundness, which he has scores of times beheld, not alone in the early incipiency of insanity, but also in its advanced or fully developed stages. We have had under our own care, in asylum custody, three different times, a young man whose mental attributes and manifestations, both in the intervals between attacks, and in their accession and recession, would square with almost the entire catalogue ascribed to Passanante. He is one of a family of seven—three brothers and four sisters; all of whom, save one of the latter, have been insane.

Of the mental history of Passanante's family, not a word is said. We are half tempted to suspect that the report of the commissioners has been constructed with intentional oracular ambiguity, and that they must now feel pleased to know that King Humbert and his intelligent advisers interpreted it correctly, for the sentence has, by royal command, been commuted to imprisonment for life. We could, both from our asylum experience, and our observance of incubative insanity outside, adduce numerous parallel illustrations of the true mental condition of Passanante, but to the intelligent medical reader, who in his professional round must have had but too many opportunities of noting similar mental lesions and obliquities, no such demonstration can be called for. We shall not, however, be surprised to find even some of our medical periodicals citing with commendation the report of the Passanante commission, for the sole and simple reason that it has appeared in the *London Lancet*. It is much easier to follow in the foot-marks of the distinguished, and more conducive to popular respect, than to go to the trouble of thinking closely and writing justly.

ARTICLE XXV.

CHLORATE OF POTASH. A REMEDY (?) THAT SHOULD NOT BE USED IN ULCERATED OR DIPHTHERITIC THROATS. By THOS. F. RUMBOLD, M. D., of St. Louis.

I am fully aware that in attacking the character of this very popular, almost domestic remedy, that I am running some risk of having my views severely criticised. But the hundreds of instances in which I have observed the effects of this preparation, causes me to not only question its efficacy in any aggravated case of sore throat, i. e., either diphtheric or ulcerated; but to assert that its use is *always* followed by an increase of all the symptoms.

I used this article in 1862 on a child that had a very sore throat; several physicians had said that it was a case of diphtheria. I at once prescribed a saturated solution of chlorate of potassa in cold water. On my visit to the child in about six hours afterward, I observed that its soft palate and tonsils, which, on my first visit, I knew from observation were entirely free from spots, had numerous spots of dirty colored mucous patches. The mother of the child called my attention to this condition of the mucous membrane. At my first visit, as I saw no patches, I greatly doubted the existence of diphtheria, but the observations made at the second visit caused me to change my opinion; of course the chlorate was vigorously pushed. At the next visit, made in about six hours afterward, the child's condition was much worse. The mother informed me that the "clear medicine made Clara cry every time it was placed in her mouth." At this visit I informed her that the child had diphtheria, which was equivalent to sentencing it to death. It died that night.

Next morning I was called to see another child (its mother learning that diphtheria was near her), who had been ill with sore throat, but was recovering. It had been in bed but one day; on the day before my visit, it played around the room most of the time, and laid down only a little more than usual. I examined the mouth and throat carefully, and saw *no spots*. For fear that

it might be diphtheria, I prescribed the popular chlorate of potassa. In the evening of that day its mouth, soft palate and tonsils had quite a number of dirty looking spots on them. The child's fever was much greater, and every symptom was worse. I recommended the continuation of the treatment, and left fearing that I would soon have another death to add to my list. Next morning I called and found my little patient better, much to my delight. There is a sequel to this that I did not then know.

In two or three weeks I was called to see a family in which there were three children taken with diphtheria. My usual constitutional and local treatment, the latter, chlorate of potassa was prescribed. The youngest child died, the next to the youngest came near dying. The oldest, aged about nine years, got along finely. The next youngest not quite so well. Soon after this, the father of this family was taken ill with the same complaint, had a severe chill and high fever following. At his first visit to me, he had no spots on the throat. At the second visit, his throat was much worse. He declared that the "clear medicine (chlorate of potassa sol.) made his throat worse, and he added that he was sure that it made each of his children worse. On my declining to continue the treatment, and desiring him to pay me for what I had done, he swore that I had killed one of his children, and that if the other children had taken the "clear medicine" as regularly as it was given to the youngest, all of them would have died. He left me and went to the houses in which I had patients who had been treated for the same disease.

He made inquiry into the effect that the "clear medicine," had on each of my patients; this lead me also to make a close examination.

The result of investigation proved that the old gentleman was correct, except as to the killing. His oldest child would not take but one teaspoonful, he fought too vigorously for the strength of his mother to compel him to take the "stringy stuff," while those younger than himself, resisted only in proportion to their strength. The grandmother of the child whose death I had expected, would not allow the solution to be given to the little sufferer. This experience made impression enough on me to take away my faith in the efficacy of chlorate of patassa, but not to lead me to think that it was the least injurious.

Since that time, I have on every occasion that chlorate of potassa has been mentioned by physicians, inquired into the

effects of it in their practice. Although a large majority had not thought of questioning its good effects, yet they observed, that it was improved by such agents as carbolic acid, muriate tincture of iron, etc. Many had prescribed it because it was popular, not because they knew it had a beneficial effect. A few had observed that the patients had objected to the solution made with water, on account of the pain it occasioned, and a few had ordered it discontinued, because the patient required stronger remedies, that is, the patient had became worse, but they did not think of ascribing the aggravated symptoms to the effect of the chlorate of potassa.

I am certain that I have had over one-hundred patients tell me that chlorate of potassa had made their throat symptoms much worse. They each were affected with only a slight difficulty in swallowing. After the use of the potash, to their aggravated local symptoms, which rapidly ensued, were added constitutional disturbances of so severe a degree, as to prevent them from following their usual avocation, and compel them to seek the aid of their physician.

I remember to have tried, when in hospital practice, equal parts of chlorate of potass and white sugar, as a preventive of gangrene. I sprinkled the powder on the raw surface of a number of stumps and other wounds. The effect was to produce considerable smarting at the instant of application, and continual dull pain afterward. On opening the wounds on the following morning, I was astonished to find them covered with a dirty colored adhering coat of pus. This I took to be gangrene; it was so pronounced by three visiting physicians. The wounds became more painful, and continued to bear the aspect of hospital gangrene for ten days. Fortunately at this time, I learned that the application of pure nitric acid had the effect to at once arrest gangrene. Although the patients had in these ten days been greatly reduced in flesh and brought almost to death's door, the nitric acid at once cleansed the wounds, as it did afterward in wounds that was not made gangrenous by potash.

I believe that a great many throats are made to take on a gangrenous appearance by the use of chlorate of potassa. I do not say that it is gangrene, but that it resembles it. I also believe that a large number of diphtheritic cases—mild ones of course—will recover if chlorate of potassa is not used, and that no patient, having this disease in a severe form, will recover if it is continuously employed.

Reports on the Recent Progress of Medicine.

GYNÆCOLOGY.

ARLICLE XXVI.

By W. L. BARRET, M. D.

1. Intra-Uterine Fibroids—J. Marion Sims, *New York Med. Jour.*, 1874.

2. Treatment and Removal of Fibroids from the Uterus by Traction—Thomas Addis Emmet, M. D., Surgeon to the Woman's Hospital of the State of New York.

3. A New Method of Removing Interstitial Fibroids of the Uterus—T. Gaylord Thomas, *Archives of Medicine.*

4. On the Value of Subcutaneous Injections of Ergotin in Uterine Fibroids and in Chronic Hypertrophy of the Uterus—Leopold. *Archiv für Gynäkologie.*Bd. xiii. s. 182. *Monthly Abstract of Med. Science*, Mar., 1879.

5. Treatment of Fibroid Tumors of the Uterus by Ergotin Suppositories—Rob't. Bell, M. D., F. F. P., S. G. Phys. to the Glasgow Institution for the Diseases of Women and Children. *London Lancet*. March 15, 1879.

6. Source of Nutrition or Vascular Supply of Uterine Fibroids and the Mode in which Ergot acts upon these growths—Byford's Address to the American Medical Association, 1875.

7. Squibb's formula for the preparation of the Solid Extract of Ergot for Hypodermic Use—E. B. Stephens, M. D., *Obstet. Gazette*, April, 1879.

8. A Case of Spaying for Fibroid Tumor of the Womb—Wm. Goodell, A. M., M. D., Prof. of Clinical Gynæcology in the University of Penn—*Am. Jour. of Med. Sciences*, July. 1878.

9. On the Treatment of Uterine Fibroids with Galvanism by Profound Puncture. Illustrated by fifty cases in the practice of Gilman Kimball, M. D., of Lowell, and Ephraim Cutter, M. D., of Cambridge, Mass. Reported by E. Cutter, M. D., *Am. Jour. of Med. Sciences*, July, 1878.

10. Report of Eight Cases of Extirpation of the Uterus—T. Wood, M. D., *Cincinnati Lancet and Clinic*, March, 1869.

11. Removal of Uterine Fibroids by Inversion of the Uterus—L. Chas. Boisliniere, M. D., St. Louis.

12. Spaying of Women. A Note, Historical and Philological—J. H. Aveling, *Obstetric Journal* of Great Britain and Ireland, Jan., 1879.

13. The progress of Laparo-elytrotomy—R. P. Harris, M. D., *Obstetrical Gazette*, March, 1879.

14. Quinia in Chronic Irritation of the Bladder—Knowls Thornton, *London Lancet*, Jan. 1st, 1868. *Philadelphia Med. Times.*

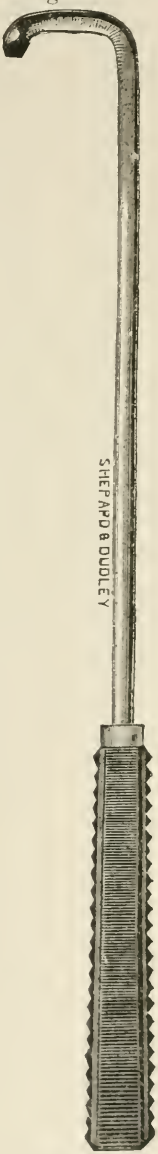
Dr. Sims says in this original and instructive essay, that fibroids are almost always capsuled. That the subserous variety

are, as a rule, not amenable to surgical treatment (but intimates at the close of the paper, that his views on this subject were somewhat modified after its completion.) That operative measures are not justifiable in a majority of mucous and submucous tumors. When, however, these two latter varieties are attended with exhaustive hemorrhage, then we are warranted in attacking them surgically. If there be no excessive hemorrhage, it is wiser and better for the patient to accept her condition as one of infirmity and make the best of it. Fibroids, when comparatively small, give rise to bearable discomfort by pressure on the pelvic organs; when large enough to rise out of the pelvis, this inconvenience ceases; they are at no time *per se* dangerous. He recites six successful cases of enucleation of submucous fibroids, one case in which operative measures were abandoned because of the supervention of inflammatory trouble excited by the preliminary dilatation of the cervix, and three cases in which death followed enucleation. In two of the fatal cases, death was caused by septicæmia, and in one by uræmia, kidney disease not having been suspected when the operation was undertaken. The patient is put into the best possible condition for the operation by the administration of tonics, the hemorrhage, in this interval, being controlled by the internal use of ergot, and if neccesary the iron tampon is called into requisition. The pre-requisites for the attempted removal are the free opening of the cervix and the release of the tumor from its investing capsule. If the os be not open and the tumor presenting, dilatation is effected with tents or by incising the os. If necessary the os is both dilated and incised. The tumor is freed from its investing capsule by a long and free incision, generally made in its most accessible and dependent portion. Should hemorrhage follow, it is checked by tamponing the uterine cavity with iron cotton, which is prepared by saturating jeweler's cotton in a mixture of two parts of water and one part of the liq. ferri subsulphatis. After saturation, the cotton is squeezed almost dry. The best method of introducing the uterine tampon, is to take a piece of whalebone, twelve inches long, tapered to a point, smoothly polished, and curved to the uterine axis. After greasing the whalebone, it is wrapped with iron cotton until a tampon of sufficient size to fill the uterus has been made. The outer surface of the tampon is then greased, to facilitate its introduction. It is shoved into the uterus, slipped off of the whalebone with

dressing forceps, and secured in position by a vaginal tampon The uterine tampon may be left in position for from twenty-four to thirty-six hours. When the capsule has been incised, he expects the tumor to come slowly down and gradually dilate the cervix. Its enucleation should not be attempted till we feel pretty sure that the cervix is nearly sufficiently dilated for it to pass; and not then, till the rounded end of the tumor presents on a level with the borders of the dilated os. If we attempt to enucleate with the lower border of the tumor above the os internum, failure will be the inevitable result, that is, if the tumor be large. When the tumor is small, say the size of a nut or an egg, these rules do not apply. For operation, the patient is placed in Sims' position, his speculum introduced, the presenting portion of the tumor seized with a strong vulsellum and pulled forward. The capsule is opened with a knife or with the scissors, at the point of its attachment to the cervix. No attempt must be made to dissect, but the cut must be made squarely into the tumor. Through this opening the finger is passed, and the capsule then divided all round in close proximity to the borders of the cervix. When the finger cannot reach high enough, it is supplemented with the aid of an enucleator. The enucleator is a blunt hook, bent at right angles to the shaft, and twelve or thirteen inches long. It is represented in the accompanying cut (Fig. 1.) While the tumor is firmly held with the vulsellum, the enucleator is rapidly pushed up between the

Fig. 2.

Fig. 1.



tumor and its capsules, until the enucleation is completed. Its evulsion is assisted by passing up between the tumor and the uterine wall the tumor hook, represented in Fig. 2. This instrument gives an immense leverage, and wonderfully assists in evulsing and rolling the tumor out of its bed. Removal being completed, ragged shreds of the capsule remaining adherent to the uterus are trimmed off with the scissors, and the cavity plugged with iron cotton to protect against hemorrhage. Bleeding is generally trifling, but in some instances severe. After removal of the uterine tampon, the uterus is daily, and often several times a day, washed out with carbolized water. The intra-uterine washing is continued until suppuration ceases. The effects of these irrigations in preventing septicæmia were striking, and are referred to as notable examples by Dr. John T. Hodgen, in his very able report on Antiseptic Surgery, read before the Surgical Section of the International Medical Congress, September, 1876.

2. Dr. Emmet believes that fibroids are only pedunculated when so located that gravitation comes into play, and that this force is the source of irritation that excites muscular contraction. From some change of structure, due to the long-continued presence of the tumor, the fibers forming the outer wall of the uterus that cover these growths, lose to a great extent their contractile power. In corroboration, it has been noted that when energetic uterine contraction takes place, there is a sinking-in of the subperitoneal surface corresponding in extent to the area of the tumor beneath it, and that this depression is decreased in proportion as the tumor is projected into the cavity. The muscular fibers on the circumference of the tumor, because of their proximity to the source of irritation, contract most powerfully, and thus form a contractile band that fills up the space left vacant by the advancing tumor. He has felt the depression of the peritoneal surface distinctly, but is not certain whether real displacement of the neutral space occurs, or whether displacement is simulated by the formation of a ridge corresponding to the circumference of the tumor by the actively contracting fibers in that locality. He inclines to the latter opinion. When tumors are situated at or near the fundus, pedunculation may be hastened by ergot. This is the accepted practice, and we may aid the action of the ergot by dilatation or incision of the cervix, but when not favorably situated for the action of gravity, uterine contraction is ineffectual. In these lat-

ter cases it is his practice to rely upon traction, keeping it up until the tumor is crowded out of its bed by the contraction of the adjacent uterine fibers.

The following case illustrates Emmet's method of operating: "In 1863 a patient was admitted to the Woman's Hospital with a fibrous tumor, distending the uterus to the size of full term; a portion of it filled the vagina and had already commenced to slough. He could form no idea of its attachment by digital examination. He applied a pair of forceps with the view of delivering the mass until he could reach the base, around which he intended to have applied the chain of an écraseur. His efforts, however, were fruitless, as the tumor was too large to enter the pelvis. Fearing to leave the patient in this condition he passed, with the aid of Gouch's canula, a stout twine around the mass, as high up as he could within the uterine cavity. To the end of the cord he made a slip-knot and strangulated the mass to control the hemorrhage which he anticipated. Steady traction was made on the cord by an assistant for fear that hemorrhage would occur should the noose become relaxed. He proceeded to remove the mass, piece by piece, with the aid of a large tenaculum and a pair of curved scissors. After he had taken away a large portion, he was surprised that the vagina continued to be occupied by about the same sized mass as at the beginning. But he was so much occupied with the work immediately before him, that he did not notice the gradual decrease in the size of the uterus until near the close of the operation. As he advanced, the cord was cut by accident. There was no bleeding, so he introduced his hand within the vagina and proceeded with the operation by pulling down with the tenaculum, portion after portion, until the pedicle was reached. He thus removed the whole of the tumor with scarely the loss of an ounce of blood, after the traction had commenced. He noted that the blanched appearance of the mass, after cutting the cord, was identical with that presented by the strangulated portion, after the blood it contained had escaped, before the cord was severed. It surprised him, too, that the pedicle of such a mass should be no larger than his index finger. Previous to the operation he had supposed the greater portion of the mass buried within the uterine tissues. At the termination of the operation the uterine canal was barely five inches in length. The mass contained a number of cysts of various sizes. The quantity of fluid that escaped

could not be estimated; but the pieces of the tumor removed weighed together nearly seven pounds. The patient recovered without a bad symptom."

From this time he has seldom used the écraseur but removed with the scissors any growth within the uterine canal which he could reach. He has had no fear of hemorrhage, for this case taught him it could be controlled in the manner described. Dr. Emmet goes on to say:

"The practical bearing is obvious that, in addition to the risk from blood-poisoning, the practice is not a safe one to remove, as is frequently done, a projecting mass within the cavity without any knowledge as to its depth within the uterine tissue. When we can make traction it matters little how thin the outer wall of the uterus may be, provided we are able to excite the muscular tissue to contraction, since the space will be closed up as rapidly as the mass is withdrawn. This will surely be the case where we have a single tumor, especially if it be situated near the fundus, or even in the lateral wall, if its size be not so large as to have replaced the greater portion of the true uterine tissue. There is certainly a limit to the procedure, but it is safer and is applicable in every case where a prudent operator would feel justifiable in attempting enucleation by any method. I deprecate the practice of separating the tumor from its capsule before withdrawing it, where muscular action is not excited, or to so limited an extent that a large cavity is left from which the patient is exposed to the danger of blood-poisoning, if she does not sink from the loss of blood beforehand.

It is even more hazardous to cut into the mass or excite inflammation within the structure, by the use of the cautery or other agents, with the view of bringing about disintegration; for no man possesses the means of limiting, to the tumor, the inflammatory process which he will establish by this mode of treatment. Where the sloughing has stopped short of breaking down with the tumor the outer uterine wall covering it, the progress has been stayed in every instance by a special interposition of Providence. Were we as familiar with the death record as we are with the the result where the treatment has been survived, no conscientious man would ever attempt to destroy a uterine tumor by disintegration.

A few words in relation to the after treatment. When the tumor has been removed, and all shreds or loose portions within

reach, it is important to wash out the cavity thoroughly. It is best to use very hot water; for not only is it a prompt excitor of uterine action, but by prolonging the injection we thoroughly empty the capillaries within reach of its direct influence. After the injection we possess no better means of increasing the contraction, and of maintaining this condition, than by the free application of Churchill's strong tincture of iodine. Should there be any oozing of blood after the hot-water injection, the application of iodine is certain to arrest it, without there exists some impediment to the proper contraction of the uterus. It is an agent I have employed for this purpose more than ten years, and it is also a most valuable antiseptic. I am confident that we possess no better means as a prophylactic, when used as I have employed it.

Under no consideration would I introduce the persulphate of iron into a cavity to arrest hemorrhage. It possesses in itself no styptic properties, and only coagulates a mass of blood, which then acts mechanically. The blood is so destroyed in character by contact with the persulphate that it undergoes decomposition within a few hours. From this source the patient frequently becomes blood-poisoned before any septic element has been germinated elsewhere. It acts as a local irritant, and it is impossible to get rid of it until removed by suppuration. After injecting the iodine I sometimes pack in a little cotton saturated with glycerine. If more than this is needed, it is better to use damp cotton which has been saturated with a strong solution of alum and tampon the vagina with the same material. On the second day I carefully remove the cotton; if there is no bleeding after washing out the cavity, I dispense with all dressings. It is necessary to devote the utmost care to cleanliness by frequent injections of warm water. To these injections may be added a little brewer's yeast as a stimulant and disinfectant, or carbolic acid, if there is any tissue undergoing decomposition. Finally I keep the patient in bed until the cavity has filled up, if a tumor has been enucleated, or until all discharge ceases from the uterine canal, if a polypus has been removed.

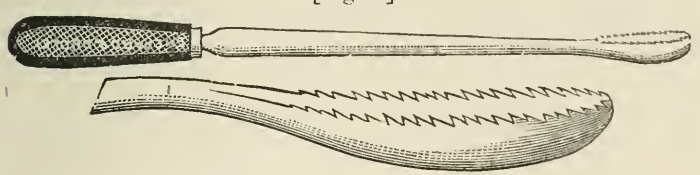
My experience in this mode of operating would recommend it on the score of safety. I have not lost a single patient, after the removal of growths from the uterus, in over eight years, during which time I have regularly employed this method. The only case during this period in which I deviated from my prac-

tice, by cutting into the growth and leaving it to break down, died. The details of the case I have already presented. I must state, however, that I have never enucleated so large a fibrous tumor before as the case I have presented, for I have not been favorably impressed with the results following the usual methods of operating which have passed under my own observation in the practice of others; but I have safely removed a number of small fibroids, where death has frequently occurred under other circumstances. I have also operated many times by traction in pedunculating tumors which have begun to project from the canal. Formerly when I have operated under like circumstances I have lost patients from blood-poisoning, in the breaking down of the portions left behind, embedded in the uterine wall. It has been my practice when the growth was larger than a pigeon's egg, to confine my efforts entirely to controlling the hemorrhage and aiding the action of the uterus in forcing the tumor from its bed towards the canal. When it projected sufficiently, I then removed it by traction. I have always been very conservative in my views regarding any surgical interference with large fibrous tumors involving a greater portion of the uterine wall. While I am likely still to hold these views my recent experience may lead me to extend the field of operative interference to a larger number of this class of cases than formerly."

3. Dr. Thomas says: the enucleation of these tumors is attended by the great dangers of septicæmia, peritonitis, hemorrhage and exhaustion. But it must be borne in mind that while heroic interference is environed by risks, a Fabian course, a policy of waiting, watching and inactivity, is by no means always safe. The growing tumor creates exhausting hemorrhage, dangerous mental depression and anxiety, and disturbs the functions of nutrition and excretion, thus slowly dragging the patients down to death. The dangers attending ligation are so great that every conscientious surgeon is averse to this method, and although the boldness of the plan recommended by Atlee may appall the timid, it is now pretty generally appreciated that in apparent temerity there is safety, not to be found in measures ostensibly milder. The plans usually adopted to extirpate fibroids may be thus summarized: 1st. Excision. 2d. Torsion. 3d. Avulsion. 4th. Ecrasment. 5th. Enucleation. 6th. The production of sloughing. These measures, superior to ligation, are yet deficient and

objectionable. Excision and torsion are only applicable to pedunculated growths, and the former method, even then, is often impossible. Avulsion and enucleation are difficult and exhausting. Ecrasment often fails to remove the entire growth, and leaves the stump to decompose and cause septicæmia. Removal by establishing the sloughing process, so certainly begets septicæmia, that this method is unwarrantable. Instead of courting, the surgeons should fear and shun sloughing by all possible means. The great objection to ergot for the expulsion of large submucous growths, is that the contracting fibers of the uterus impair the nutrition of the neoplasms so completely as to produce death and decomposition. He then proposes a plan which he says he regards as superior to any yet suggested: "This consists in seizing the tumor at its most dependent and accessible point with a strong vulsellum forceps and passing along its border a spoon-saw, or serrated scoop (figured in the accompanying diagram) and by a gentle pendulum motion from side

[Fig. 3.]



to side, sawing through the attachments of the tumor and freeing it entirely from its connections with the uterus." The spoon-saw or serrated scoop consists of a steel spoon with a strong handle, twelve or thirteen inches long. "The spoon itself is slightly convex on its outer, and concave on its inner surface, while its borders are serrated. The saw teeth are not blunt and not slanted in either direction, but perpendicular. The convex surface protects the uterine wall entirely, while the inner and concave causes the instrument to hug the tumor and run along its surface, as it cuts its way laterally and upwards." The advantages claimed are: 1st, Diminution of hemorrhage. 2d, Perfect adaptation of the instruments to the contour of the tumor. 3d, Facility in reaching all parts of the tumor. 4th, Rapidity of action and the certainty of perfect enucleation. A number of difficult cases are related by Dr. Thomas, in which enucleation was rapidly and safely effected with the aid of this

instrument. (The Doctor's practical experience with it confirms the favorable opinion of its utility that is suggested by its mechanical construction; but aside from the serrated spoon, we fail to detect anything novel in the communication, and the "New method of removing submucous and interstitial fibroids of the uterus," is rather a modification of methods that are old.)

4. "Leopold supports Hilderbrandt, Winkle, Wernich, etc., as against the late Prof. Mastin, of Berlin, and others, maintaining that ergot so employed is of great value in the treatment of uterine fibroids, and he has employed the same agent with success in treatment of sub-involution and chronic metritis. He says success greatly depends on the mode of employment, the continuation of the treatment, the selection of cases, and especially the preparations employed. He thinks failure due to neglect of these precautions. According to the author, the form of fibroid that gives the best result is the interstitial, though hemorrhage may be lessened and expulsion promoted in the submucous variety. Unsuitable cases in which to employ ergot, are those in which the uterus is incapable of contracting because of false membranes binding it down; when it contains a fattily degenerated or calcareous tumor; when its muscular fibers are atrophic, or its blood vessels degenerated. Tumors of the body are more benefitted than those of the neck. Great care is observed in selecting for treatment cases of sub-involution or chronic metritis. Cases in which there is pelvic exudation and those in which uterine polypi exist are excluded. The preparation Leopold recommends is Wernich's extract dissolved in four parts of distilled water. After trial he has found that the addition of glycerine, morphia, salicylic acid and carbolic acid is objectionable. The solution should be frequently renewed, as it soon gets mouldy. The situation selected is at the side of the navel The cannula should be inserted deeply into the abdominal wall, the injection to be made slowly; a cold compress is immediately applied, and the patient should lie on her back for several hours afterward. Daily injections should be made and the treatment continued from 30 to 120 days. They should be kept up during the menstrual period. With diminution of the bleeding, the interval between the injections may be lengthened. Leopold records twelve cases in which he employed ergotin injections. In three there was no improvement, in five there was notable de

crease of the tumor. So he concludes that 75 per cent gave evidence of improvement. He also gives results obtained in fourteen cases of hypertrophy of the uterus. Eight cases are classed as sub-involution, five as inflammation or metritis, and one as exfoliative endometritis (dysmenorrhœa membranacea). The chief effect observed was diminution of the menorrhagia. The duration of the treatment varied from six weeks to several months. If improvement does not take place after fifty or sixty injections, Leopold thinks it is useless to continue the treatment. In the majority of his patients the general health was greatly benefitted by the treatment. Sections of fibrous tumors from patients treated by this method demonstrated that their vascular supply had been greatly diminished; they were anæmic, and fatty degeneration of their muscular elements had commenced.

5. The author after acknowledging the beneficial results to be obtained from the subcutaneous injection of ergotine in uterine fibroids, objects to its employment in this manner on the score of the abscesses it produces, and the pain attending its employment in that manner. In his experience, the insertion of the ergotine solution into the muscular structure, does not obviate abscess. He uses ergotine in four grain doses, made into suppositories and introduced into the rectum. One suppository is used each night. After enumerating several cases, which he says were greatly benefitted by this treatment, he insists on the absolute necessity of the greatest care in the selection of the drug used, and adds that many of the preparations in the market are absolutely worthless. (Dr. T. A. Emmet in the article already quoted, recommends the introduction of suppositories of the extract of ergot into the uterine cavity, and this strikes us as the most efficient method of using it. The preparation that has given us the greatest satisfaction, is Squibb's solid aqueous extract).

6. The source of the nutrition or the vascular supply of fibroids, is through many small channels at various points on their periphery, and not as in ovarian tumors, from one great artery. Hence their somewhat definite period of vitality, and the ease with which nutrition may be disturbed. Both ergot and belladonna act upon the uterine wall in a three-fold manner, and cause a decrease in the supply of blood, both to the healthy and morbid structures of the uterus. 1. The caliber of the arteries

is diminished by the contraction of the muscular coats of the vessels. 2. The arteries are diminished in size by the compression of the uterine fibers surrounding them. 3. The uterine vessels are disturbed and drawn in diverse directions, by both the contraction and compression of the uterine wall, and are thereby rendered less fit for sanguineous conduits.

7. Dissolve 200 grains of the extract of ergot in 250 minims of water by stirring; filter the solution through paper, and make up to 300 minims by washing the residue on the filter with a little water. Each minim of this solution represents grains iv of ergot in powder. Of this solution, from 10 to 20 minims are injected daily, or once in two days.

8. In this case, with the view of lessening periodic congestion of the womb, and thus decreasing the nutrition of the tumor, Dr. Goodell extracted both ovaries through the vagina. His patient, an unmarried lady, æt 33, suffered at the monthlies with an excruciating pain in the left ovarian region, which she described as twisting, bursting, rending. The pain began a week before, and lasted through the period, which continued for one week, and was profuse. During the week following the menses, it abated somewhat. She spent three weeks of each month in bed. The uterus was three inches in depth. The tumor filled the pelvis and reached two finger breadths above the navel. It was sub-peritoneal. The operation relieved all the aches and pains that had embittered her menstrual life. At the end of seven months from the date of the spaying, she had not passed a single day in bed since convalescence from the operation, and only by the most careful examination could a slight fibroid enlargement of the womb be detected. Dr. Trenholm, of Montreal, has operated once, Prof. Hegar, of Freiburg, twice; and Prof. Nussbaum, of Munich, once in similar cases. These cases, with that of Dr. Goodell, make five cases in all, in which removal of the ovaries has been resorted to to palliate the distressing pain and exhausting hemorrhage sometimes caused by uterine fibroids. In all of these instances, the operation has been pronounced a success.

9. In 1871 the author began treating uterine fibroids with galvanism by profound puncture, hoping thereby to arrest their growth. Of fifty cases so treated, in seven instances the growth

was not arrested, four died; in thirty-two the growth was arrested; three cases were relieved and four were cured.

10. Dr. Wood reports eight cases in which he extirpated the uterus; amputated it through the neck, as close to the vaginal junction as possible, without opening into the vaginal canal, for the purpose of removing fibroids connected with that organ. He says, that if the tables of Pozzi are examined, it will be found that the largest number of cases he reports were only gastrotomy, with partial operations on the uterus, and in many of them the uterus was not touched with the knife. They should not, therefore, be counted either for or against hysteriotomy. Of Pozzi's 119 cases, the smallest number were complete operations; the balance were partial as applied to the uterine body. Analysis shows that the partial are more fatal than the complete operations, and this confirms the opinion that experience has long since forced upon Dr. Wood. Of the eight cases reported by Dr. Wood, five recovered, and three died. The Doctor operates by making an incision in the abdomen in the mesian line sufficiently extensive to admit of the removal of the tumor. The uterus containing the tumor is raised from its position and supported by assistants, while ligatures are applied to the ovarian vessels on each side, and the lateral attachments of the uterus are dissected down to the vaginal junction. A needle is passed through the neck of the uterus, armed with a strong, double silk ligature; the ligature is then tied, the neck cut off and the tumor removed. The ends of the ligatures are brought out at the lower end of the abdominal wound, and the subsequent dressing is the same as in ovariotomy.

11. Prof. Boisliniere reported a case to the St. Louis Obstetrical Society, in which he delivered a submucous fibroid attached to the fundus, with a pair of narrow-bladed forceps. The tumor was dragged into the vagina, investing the womb as it was drawn down. The chain of an ecraseur was then placed around the pedicle and its connection severed. The inverted womb was easily reduced, and the patient made a rapid recovery. The tumor, which was exhibited to the society, was as large as a very large orange, and its pedicle was about an inch and a-half in diameter. This is the first instance of this practice that has come to the notice of the reporter.

12. Dr. Aveling shows that this operation has been performed for many centuries by Eastern nations from motives social, æsthetic and religious, and that it may be traced back to remote periods by reference to the "Satyræ Medicæ" of George Frank de Franckenau, 1822. The first section of the second "Satyra" contains the pith of what is known upon the subject up to the time of his writing—the chapter "De Castrandis Mulieribus" in the book of Père Theophile Raymond, entitled "Eunuchi nati, facti, mystice," 1865, and the little treatise, "De Castratione Mulierium," by Georgius Francus, 1673, etc.," contain information in reference to its bibliography.

He says that James Blundell first proposed the extirpation of the ovaries as a remedial measure, at a meeting of the Royal Medical and Chirurgical Society, held in London, June 23, 1823, in a communication entitled "A Contribution of Experiments and Observations on Injuries of the Belly, considered in their relation to Abdominal Surgery. In a small volume published by Blundell two years later, entitled "Researches Physiological and Pathological," at page 26 may be found the following remarkable paragraph: *The extirpation of the healthy ovaries.* This operation, even granting it to be safe, can scarcely in any instance be necessary, though it may be observed by the way, that it would probably be found an effectual remedy in the worst cases of dysmenorrhœa, and in bleeding from the monthly determination on the inverted womb, where extirpation of the organ was rejected. The author accords to Hegar, priority in the performance of the operation, and to Battey priority only of publication. It thus appears that Battey is stripped of originality of conception, and was even forestalled in the performance of the operation.

13. The Ritgen operation, as improved by Thomas, of New York, has now been performed seven times, with four deaths, viz.: twice in New York; three times in Brooklyn; once in Sheffield, England, and once in London. Dr. Thomas saved one woman; Dr. Steve two; and Dr. Thomas W. Hine, and Dr. Arthur W. Edis, each lost theirs, but saved the children. Six of the seven children were alive at delivery; one died in an hour, and one in eighteen days. In four of the seven operations the bladder was torn in dilating the vaginal opening, either in the lacerations by fingers or the removal of the fœtus. The

operations have required from twenty to thirty-five minutes for their performance; and it is said that at least four assistants, and, better, five, should be present to aid the operator.

The operation has not by any means been tested as yet, and it is impossible to draw a comparison between it and the Cæsarean section, at this stage of progress. The first seven Cæsarean operations in the United States (four not published by the operators), saved four women and four children, which is a better result than from the new operation thus far. Laparo-elytrotomy would appear to be less dangerous in cases of long delay than the Cæsarean operation; not because the abdominal cavity is unopened, but because the uterus is not wounded, which would appear in cases of prolonged labor to constitute the chief element of success in the subperitoneal section. It is not to be expected that the new method will save moribund subjects, or women in the last stage of cancerous disease, as were two of the seven under this form of operation. When twenty women have endured the new operation, it will be time enough to calculate the advantages and disadvantages of it. At present we are inclined to favor the old method, and to rob it of its chief danger by a very early use of the knife. If delay has already occurred through ignorance, the new operation should be preferred, as less dangerous under the circumstances; but in an early case, we believe the Cæsarean section to be preferable on many grounds. It is more simple, takes much less time, requires much less surgical skill, fewer assistants, and more simple implements, and can be performed with the instruments of a pocket-case, as it has been, on two occasions, in country practice in the United States. We believe that each method will be found to have its advantages and disadvantages, and that circumstances should determine which form should have the preference in a given case.

14. Mr. Thornton relates the history of three patients who after ovariotomy were troubled with fever and severe dysurea, and whose urine contained much mucus, was ammoniacal and offensive. Three ounces of a solution of quinine, two grains to an ounce of water, with a few drops of diluted sulphuric acid to dissolve, were thrown into the bladder. After a few minutes two ounces were withdrawn, and the rest allowed to remain until voided by the patient, she being instructed to refrain from passing it for an hour if possible. The relief in each case was prompt and perfect.

Article XXVII.

DISEASES OF THE RESPIRATORY ORGANS.

By Wm. Porter, M. D.

1. The Larynx in Cases of Leprosy—Elsberg, N. Y. Med. Record, Jan. 4th, 1869.
2. Diphtheria—Resumé.
3. Laryngeal Paralysis—Lefferts, N. Y. Med. Jour., Jan., 1879.
4. Diseases of the Bronchial Glands—Quain, Brit. Med. Jour., Dec. 14th, 1878.
5. Syphilitic Laryngitis—Krishaber, London Med. Record, Jan. 15th, 1879.
6. Function of the Epiglottis—Walton, Journal of Physiology, Sept., 1879.
7. Syphilis of the Epiglottis—Klemm, Chl. für Chir. 1879, p. 368.
8. Resection of Rib in Empyema—Lutz, Notes.
9. Acute Miliary Tuberculosis—Litten, Med. Times and Gaz., 1879.

1. Dr. Elsberg, to whom we are indebted for the accompanying illustrations, in a clinical lecture at Charity Hospital describes two of these rare cases. In the first—a Cuban boy, æt 19—there were characteristic premonitory symptoms experienced four years ago, and large tuberous masses have since been developed, first in the skin of the forehead, and afterwards on the lower portions of the face. There are a few white scars on the body, and the surface of the extremities is scaly, and there are several points of ulceration. During the last year there has been a gradual change in his voice, which, from being a high tenor, is now masked and muffled. All the portions of the mouth and throat, rich in connective tissues, are involved. The tongue is large, swollen and fissured; the uvula is long, and the surface made uneven by several small tubers. The palate and pharynx have escaped thus far. The laryngoscope (Fig. 1,) revealed a large, thick, unsymmetrical epiglottis. The upper aperture of the larynx has become irregular and smaller; the ary-epiglottic folds are tumefied and studded sparingly with small tubers. The ventricular folds present the same appearance, and so cover the vocal cords, that only the inner edges of the latter can be seen. The

mucous membrane over the arytenoid cartilages is swollen, and presents two large tubers—one on each side. The parts move slowly when phonation is attempted.

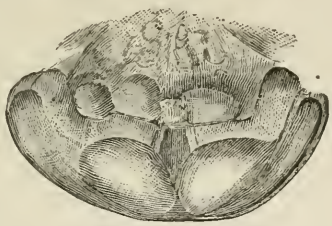


Fig. 1.

The second case was that of a man, æt 45, native of New York, who had, however, lived in Cuba for three years. Here the disease seems to be progressing more rapidly, and is further developed than in the other. In addition to the features before noted, the pharynx and palate are involved, the latter ulcerated. The

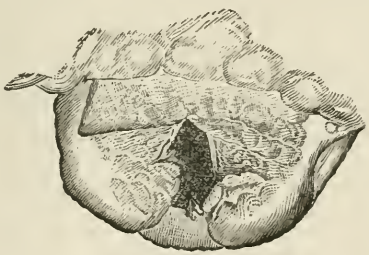


Fig. 2.

laryngeal mucous membrane (Fig 2) is thickened and covered with large masses, as also the ary-epiglottic and ventricular folds. In the intra-arytenoid space a large tuber stands out prominently.

The laryngeal disease occurs secondarily to the cutaneous, but soon assumes great prominence. The diseases which produce similar appearances are lupus, syphilis and phthisis, but the clinical history and the cutaneous and other manifestations make a differential diagnosis a matter of no great difficulty. The intense vascular injection is absent in phthisis. Dr. Elsberg prefers to avoid the term tubercle, which has come to be identified with phthisis, when designating the lumps or tubers of leprosy. The prognosis is always unfavorable.

2. A remarkable feature of diphtheria, says the *Lancet*, is the

curious manner in which it sometimes springs up in a certain locality, becomes epidemic and virulent, affecting a large proportion of the population; at other t mes apparently endemic, it is limited to certain houses to which it clings tenaciously, but with little tendency to spread. In the majority of the inquiries with reference to limited outbreaks, the presence of foul health conditions, such as bad water supply, absence of drainage or soaking of sewerage from privies into wells, has been detected. As in the case of enteric fever, decomposing sewerage has been believed to be capable, under certain conditions, of generating diphtheria. It is true that diphtheria and enteric fever are close neighbors in a cycle of diseases, but the evidence is not yet sufficient to convince scientists that diphtheria is even in a minority of cases, diffused through water supply or sewer gas, and far less is the evidence conclusive that putrescent sewerage can originate it. It has been apparently proved by the investigation of one localized outbreak, that the milk supply was the means of conveying the disease, as there seemed to be no possibility of contagion having been introduced from an antecedent case. An not unnatural hypothesis, therefore, would be that either some disease primarily affecting bovine animals is capable of being transmitted to man, in whom it takes the form of diphtheria, or on the other hand, that diphtheria may be transmitted through the cow which it affects but slightly, or in another form. We should have in the latter case the converse of small-pox, in that small-pox transmitted through the cow becomes mild, whilst diphtheria similarly transmitted, becomes more malignant. Many outbreaks of enteric fever are now traced to milk supply, and it is a field for inquiry, whether diphtheria, which has some points of relationship to the former, may not be developed from the same source. An attempt to prove this hypothesis was made by Mr. Powers (before the London Pathological Society, Jan. 1879), who suggests a diseased condition of the udders of the cow, known as garget, influencing the quality of the milk in such a manner as to produce diphtheria in those who use it. This is a more plausable theory than that ascribing the propagation of diphtheria to defective sewerage, for we have, from time to time, reports of severe epidemics throughout the country, for instance in the mountain villages of the Alleghanies, where sewers do not exist. But a few months ago, a contributor to a foreign exchange declared that the potato was the exciting cause of diphtheria, and each month brings new—

sometimes *very original*—ideas regarding the etiology of this formidable disease. None of these inventions are proven as yet, though certainly it seems as though the relation of contaminated milk to diphtheria is worthy of investigation.

The medical literature of to-day teems with formulæ for, and the history of wonderful cures in diphtheria, but little or nothing new has been added during the last few months. Valuable contributions have, however, been made to this department. (Mackenzie, Reiter, Chapman, Gill, Davis, Smith and others), and from these we glean; 1st. That recuperative (tonic) agents should be used freely and early in the disease. 2d. That so called specific treatment is valueless. 3d. That antiseptic remedies—chlorate of potassium, salicylic acid, and the different compounds of carbolic acid, still find favor in the treatment of secondary poisoning. 4th. That harsh and destructive local treatment is to be avoided, the preference being given to such applications as lime water, or solutions of carbolic acid or chlorinated soda.

Alcohol in full and free doses has been urged in by Dr. Chapman, and this has been sanctioned by good authority, while Reiter, believing that the dangerous element in diphtheria is not a poison, but an excess of fibrine in the blood, seems to have had great success in the use of calomel. He gives calomel boldly every hour, until the intestinal discharges are gelatinous and of a dark green hue, and has never seen ptyalism follow. In the case of a babe eight months old, 3½ grains of calomel every hour for 68 hours, seemed to be responsible for the cure which followed. The reporter has followed this treatment in three severe cases, and these confirmed the observations of Dr. Reiter, but the record of many cases is yet needed to substantiate this promising departure from established rule.

In passing, we may remark that the theory which regards croup as a form of diphtheria, is gaining ground. Those who have had the best opportunities for studying the disease, are outspoken on this point. Hillier, 1862, Semple, 1872, George Johnston, 1870, Jenner, 1875, Traube, 1872, Mackenzie 1863, etc. To such as would know the latest, and probably most convincing argument in favor of the identity of the two diseases, we commend the recent work of the last named author. (American Edition, Lindsay & Blakiston. 1879.)

3. Lefferts has published two interesting cases of bilateral

paralysis of the dilator muscles of the glottis (crico-arytænoidei postici) in both of which recovery occurred. The first a woman, æt. 40, who had previously suffered from secondary and tertiary syphilis. In April, 1876, she began to suffer from continually increasing dyspnœa, and on May 7th had two severe attacks of laryngeal spasm; inspiration was difficult and attended with stridor; expiration was noiseless and easy. On laryngoscopic examination a narrow slit was seen between the vocal cords, gaping slightly during expiration and disappearing on forced inspiration. The sensibility of the laryngeal mucous membrane was undiminished. The patient made a good recovery under anti-spyhilitic treatment. The second case was in all respects parallel to the first. Lefferts concludes that in the absence of any corroborative evidence of specific lesion in the nerve centers, he must regard the paralysis of the muscles as due to some direct and local effect of the syphilitic virus.

4. Dr. Quain has analyzed the records of sixty cases in which the bronchial glands were diseased. The pathological conditions to which these structures are liable are congestion, acute and chronic inflammation, tuberculosis, scrofulous and syphilitic disease. The glands are affected more often in the female after puberty. Besides the various cachexiæ, the exciting causes are the structures which contain the afferent lymphatic vessels, as bronchitis, pleurisy and pneumonia. The enlarged glands pressing on the recurrent laryngeal nerve may excite cough. The symptoms, in order of frequency, are cough, which is generally dry; pain felt near the fourth and fifth dorsal vertebræ, with tenderness on pressure often accompanying it; dyspnœa with dysphagia and hæmoptysis. Aphonia and vomiting occurred in a few cases; congestion and puffiness of the face due to pressure on the venous trunks was often present. Among the physical symptoms, are dullness in the interscapular region, and often bronchial respiration; loud expiratory murmur and increased vocal resonance. The treatment which is directed to the cause is often effective. [In 1874 Lereboullet made deductions which the above confirm throughout. He used successfully in such cases iodine, arsenic and belladonna. Raymond (1874), believes that enlargements of the lymphatics of the lung (*angiolucites pulmonum*) followed frequently cancer of the stomach. Bronchial adenopathy develops during an attack of whooping-cough (Guèn-

eau de Mussy, 1875,) and measles (Eustace Smith, 1875). Sometimes on physical exploration, a mass of enlarged glands may be detected near the bifurcation, behind the lower part of the manubrium].

5. The following conclusions, drawn by Krishaber (*Gaz. Hebdomadaire*, Nos. 45, 46, 47, 1878,) from a long series of most instructive cases, which are set forth, after a truly excellent clinical lecture on the etiology, the pathology, the dangers, and the treatment of the respiratory troubles in the different stages of syphilis: 1. The syphilitic laryngostenoses show themselves at the most varying periods after infection. 2. Their late appearance is not always, but most frequently, a proof of the presence of an advanced stage of syphilis. 3. The lesions which produce laryngostenosis in syphilis are different, according to the sudden or slow appearance of respiratory troubles. 4. The sudden narrowing is almost always due to œdema, which accompanies the different specific manifestations; the slow narrowing is most frequently the consequence of a hypertrophic or luxuriant inflammation; sometimes it is due to cicatricial narrowing, and least frequently to the formation of an osseous tumor. 5. The respiratory accidents are the graver, the closer the causating lesions are found to the tracheal region. Tracheal lesions themselves are most frequently fatal. 6. The slow form of syphilitic laryngostenosis may be complicated by œdema and suddenly take an acute course. This complication, however, is not frequent. 7. The acute form of syphilitic laryngostenosis may be successfully and quickly fought by specific treatment, and surgical intervention may be avoided in case of apparently imminent asphyxia. 8. The specific treatment must exhibit from the beginning very high doses, and must be continued in gradually diminishing intensity, even after the cessation of the respiratory troubles, in order to avoid recurrences. 9. The slow form gives way to the treatment the more reluctantly, the more insidious and prolonged has been its invasion. 10. The slow narrowing is arrested sometimes spontaneously, and tracheotomy is then not called for; this narrowing, however, never undergoes spontaneous retrogressive metamorphosis. 11. If there be, in consequence of cicatricial narrowing, any tendency to obliteration of the larynx, this will take place, whatever might be done; the opening of the air passages, and the uninterrupted wearing of

the canula, are imperiously demanded in this case. 12. The results of the mechanical dilation of the larynx have not yet recieved their consecration by time. 13. The syphilitic vegetation of the larynx may be destroyed or removed like other non-specific laryngeal growths. 14. The differential diagnosis between simple and syphilitic vegetations is rather easy; but there are difficulties regarding the differential diagnosis of syphilitic, tuberculous, and carcinomatous néoplasms. 15. In all forms of syphilitic stenosis, cough is rare, and pain little marked. 16. The conservation of the voice is compatible with the gravity of the evil. 17. Except in cases of growth, the local treatment of syphilitic laryngostenosis is useless. 18. In the overwhelming majority of cases, the choice of treatment is to be made between specific medication and tracheotomy (or laryngotomy). In certain cases both methods will find their employment.

6. In this interesting article, it is shown that the epiglottis is not essential to deglutition, even of liquid, but that it is an important agent in the modification of the voice. Experiments and pathological cases in support of these views are cited. [This is worthy of notice, as it indicates the justice of surgical interference where there is malignant or other formidable disease of the epiglottis. It is a matter of record, that the epiglottis can be removed in the human subject, either partially or entirely, though fortunately the necessity for such procedure seldom arises.]

7. Klemm believes this form of syphilis is not so rare as is supposed. In the early stages, the epiglottis is red, swollen and ulcerated around the border. The tendency is either to chronic thickening or to ulceration, the latter being more frequent. The process may last for years and involve the glottis. After a time, certain characteristic contractions may form in the epiglottis, which is at no time very painful to the touch, and in this respect differs from tubercular disease. Carcinoma and tuberculosis (and lupus,) are alone to be distinguished from syphilis of the epiglottis, and here outside and general manifestations are valuable, as the local distinctions cannot always be made out.

8. By request, Dr. Lutz has furnished the following suggestive notes for our report, from a case in practice: "K., æt 40, a common laborer, was taken sick with pneumonia of the right lung about the middle of February, for which I treated him.

Nothing worthy of notice occurred during the progress of the disease; the lung passed through the different transformations, and on the 23d of February, I made my last visit, leaving with him a prescription for a tonic. On the 16th of March, I was again summoned to see him. He was sitting up in a rocking chair; complained of slight cough, but more particularly of great dyspnœa and palpitation of the heart. About five days before, he said he felt a pinching pain in the left side and had considerable fever and cough. On making a physical examination, all of his garments having been removed, I found that the left side of the chest was perfectly immobile, the intercostal spaces bulging, the apex beat of the heart visible in the epigastric region, and the vocal fremitus entirely absent. Percussion elicited dullness up to the second intercostal space. Auscultation showed the respiratory sound absent over the affected side, except in the apex of the left lung, there was heard anteriorly bronchial respiration; whereas, on the healthy side, the respiratory sound was decidedly exaggerated. Besides this, there was a tumor with sloping borders covering the fourth and fifth intercostal spaces, and painful on palpation. Empyema was diagnosed and aspirations proposed, as a means of at least temporary relief, to which the patient consented next day; March 17th, I drew off two quarts of yellowish, creamy, odorless pus, the needle of the aspirator having been inserted in the 8th intercostal space on a line let fall from the middle of the axilla; the patient was greatly relieved, of course. It was found, however, that in spite of all the remedies usually administered to promote absorption, the cavity refilled to about the same extent in a week, when I again drew off 1½ quarts of pus; in another week it again became necessary to evacuate two quarts. Both my patient and I were now satisfied that more heroic measures were indicated, and I proposed to him to resect a rib, which would give us a patulous opening through which the cavity could be washed out with antiseptics. Accordingly on last Saturday, April 5th, the patient was chloroformed, an incision made over the ninth rib, and a piece an inch and a half was removed. Through it about 1½ quarts of pus escaped. The piece was taken out at the lateral border of the infra-mammary region. Of course the wound was kept aseptic. I have since washed out the cavity twice daily with a two per cent solution of carbolic acid. After the opening had been made, I could by means of a reflected light see the left lung pressed against the

spinal column. On the morning of April 6th, the patient had a slight chill, and the temperature rose to 101°. Since then he has steadily progressed; the pleural cavity discharges less pus every day, the respiratory sounds are returning, the patient has a good appetite, is gaining flesh and sleeps well."

9. The diagnosis of miliary tuberculosis must depend on a consideration of all the phenomena present, and not on any one symptom. Irregular fever, high from the outset, and accompanied early with bronchitis and cough, considerable increase in respiratory frequency, with cyanosis, rapid wasting and a loss of strength, and perhaps an eruption of herpes on the lips, would favor the idea of its existence, especially in a person with old disease of the apices of the lungs. If no roseola appears at the end of the first week, and diarrhœa, meteorismus and ileo-cæcal tenderness are absent, the probabilities are still more in favor of acute tuberculosis, and still later, the absence of bed sores, so frequent in typhoid, would further strengthen the diagnosis. Dr. Litten calls attention to the occasional difficulty of distinguishing between diffuse bronchitis in elderly persons with emphysema, and miliary tuberculosis in early stages. The chief difference is the abundance of the physical symptoms of catarrh (râles) and of the sputa, early met with in diffuse bronchitis. Miliary tuberculosis runs its course in two to eight weeks. The prognosis is almost absolutely fatal. Therapeutic measures can only be directed to reducing the fever and alleviating the bronchial catarrh.

Translations from the French.

EXTRAORDINARY HYPERTROPHY OF THE MAMMÆ IN A GIRL AGED 16, REMAINING STATIONARY FOR EIGHT YEARS. VERY NOTABLE SPONTANEOUS ATROPHY AFTER MARRIAGE, AND MANY PREGNANCIES. [Translated for the JOURNAL from the proceedings of the Academy of Sciences, of Montpellier. Section of Medicine. By S. POLLAK, M. D., Surgeon to the Eye and Ear Infirmary of the St. Louis Hospital.]

There are extraordinary morbid growths or monstrosities recorded in the annals of medicine, as pathological curiosities, whose etiology is unknown, whose progress is a departure from ordinary laws, and on which therapeutics remained powerless. They are given as mere facts. We recognize that their observations are ordinarily without profit to us.

But this case of mammary hypertrophy is rather an exception, the complete history of which leads to very instructive conclusions; it will furnish new proofs of the astonishing resources of nature, and will command from us under all circumstances a prudent reserve in the diagnosis and treatment.

Prof. Benoit presented to the Academy in 1860, a girl aged 16 years and five months, who had two enormously hypertrophied mammæ. While sitting, she supports them with her lap; while standing, they cause curving of the vertebral column, and displacement of the scapulæ.

This hypertrophy commenced eighteen months ago, and has already attained extraordinary proportions. The circumference of the right breast is 94 centimetres, that of the left breast 1 metre, .05 centm. The pedicle of the right breast is 67 centm., that of the left breast, 69 centm. in circumference. The right breast extends 8 centm. below the umbilicus, and the left breast 13 centm. Mere vestiges of nipples are found laterally. The cutaneous sacs containing the tumors take the same direction, at the expense of the interior and posterior parts.

This is a hypertrophy, not of one, but of all the elements of

the mammæ. The glandular substance, considerably enlarged and patulous, is disseminated in a soft adipose elastic tissue, and can be easily palpated. The vascular system has acquired great development. Prof. Benoit established the relation that exists between the development of these tumors, and the disturbance of the respiratory and even digestive functions. The whole body must necessarily suffer from the vicious direction taken by the nutritive forces.

The removal of the mammæ by ablation, was decided on in consultation, but not consented to by the patient. It was not urged, on account of her extreme debility and great emaciation. A plaster cast was taken of her breast, and deposited in the museum of the faculty of medicine. She returned home. *This was in 1860.*

In 1876, Dr Monteils her physician, in giving the sequel, writes: This case, so simple in its beginning, so surprising in its development, is still more astonishing in its termination. This strange morbid affection of which she conserves, and ever will conserve indellible traces, is a magnificient specimen of the *vis medicatrix naturæ*, such as I have often seen in the mountains of Lozère, among those who were obstinately rebellious to surgical treatment.

Permit me to begin *ab novo*, in order to elucidate some etiological peculiarties, which my inquiries elicited, and which should be known.

Rosine M., born 1st December, 1844, at the foot of Mount Lozère, in a country where lymphatic, goiterous and scrofulous temperaments predominate. Her childhood was normal. At the age of 15, she had not menstruated, although this is the age that girls of this country do so. Nevertheless, though slightly lymphatic, she was considered strong enough to go in service in the village of Gajan, where the women are in the habit, as is the custom in all southern departments, to stand waist deep in the river when washing clothes.

In 1859, one day when Rosine felt very unwell, she perceived the first menstrual molimen while washing clothes in the river, she following the example of her companions. She always ascribed her great infirmity to that immersion. I have known her from infancy, attended her on many occasions. I made dilligent inquiries after all possible causes. I have charged her of having used, as is occasionally done here, some herbaceous

plants, by the friction of which a rapid growth of the breast is provoked. She denied this positively and persisted in her first belief. It is certain, that during her sojourn in Gajan, and from the moment that she stood in the water, notwithstanding her feeble state of health, her breasts continued to grow. The increase of volume of both breasts was so rapid, that she left her employers and returned to her family.

When Rosine M. consulted me in 1860, the mammæ had already attained unheard of proportions. They had an amplitude of a true Puncinella in front, and she could not venture going out. The weight of these abnormal masses of adipose and glandular tissue, had a deleterious effect upon her constitution, by fatiguing the anterior and posterior muscles of the trunk, in compressing the chest, to the manifest injury of the regular function of the lungs, and yet the climax of their development had not been reached.

I at once instituted an energetic atrophic treatment, by the internal and external use of the various preparations of iodine, and though persisted in for six months, they only retarded, but did not arrest the growth. A few isolated small abscesses would occasionally be seen, which gave exit to fetid, bad pus. Her health rapidly grew worse, the chest became deformed, a general degeneration was threatening. I proposed ablation, which was refused. Then only, I advised her to go to Montpellier, where she was exhibited to the Academy of Medicine, and her condition described as above.

On her return home, she became seriously sick, had a pulmonary catarrh, which she credited to the plaster of Paris cast which was taken of her breast while in Montpellier. She, however, recovered from this attack, and experienced no inconvenience from it. For the consecutive eight years, she retained this infirmity. Her menses reappeared in 1862, though sparingly, yet regularly.

At last she found a husband, who was willing to care for her in spite of her repulsive appearance. She was married on the 5th of June, 1869, and from that moment her breast commenced appreciably to diminish in volume. Since then, she gave birth to three children, a girl in May, 1870, a boy in February, 1872, a second son in Sept., 1875, and is now advanced seven months in pregnancy. The child born in 1875 died at three months, the other children are healthy and strong. She nursed none of her

children, there being no milk in the breasts, though there was considerable turgescence during gestation, which made them appear larger, for the time being.

Rosine is now 32 years old, she has almost entirely lost her former appearance, and looks when dressed, like any other woman with large breasts. She is now a robust woman, an excellent housekeeper, and attends to three other families besides her own. She had no other ailing, except a slight deafness.

The following are the measurements of the breast at present:

	METRES.
Horizontal circumference of the middle of the right breast	0.27
Horizontal circumference of the middle of the left breast	0.33
Vertical circumference of right breast	0.35
Vertical circumference of left breast	0.40
Circumference of right pedicle	0.32
Circumference of left pedicle	0.34

They yet reach within 3 and 5 centimetres the level of the umbilicus.

In the unpregnated state, these organs resemble a flabby, wrinkled mass of skin, traversed by enormously dilated varicose vessels, covering the almost atrophied mammæ, and disseminated through a mass of loose, thick adipose tissue, which can be easily retained in place by a corset.

The only inconvenience which they present, and which are yet considerable, are their hideous appearance on account of their flabbiness, and the intense, sebaceous repulsive fetor emanating therefrom.

Cases of extraordinary development of the mammæ without malignant degeneration are not rare. Labarraque has collated in a monograph 33 cases, among which that of Rosine occupies the first rank, but what renders her's exceptionably remarkable, was the favorable termination, which had not been foreseen. None could expect that a girl of 16, who was delicate, anæmic, borne down by the weight of breasts of monstrous exuberance, could not only resist the withering and wasting effect of this growth, but could become a mother, and under the happy influence of maternity, experience a notable diminution of the formidable deformity.

It is impossible to misconstrue the effect of marriage and its consequences in favor of the resolution of mammary tumors. This case so carefully detailed by Dr. Monteils, leaves no doubt on that score. There was a change in the direction of the in-

flammatory process, and the mammæ have ceased to be the predominant point of nutritive action. This fact is the much more remarkable, from the very opposite phenomena which characterize the general rule. It is during and after pregnancy, that the breasts perfect their glandular structure, and reach the term of ascending evolution. With the cessation of the excitement produced by pregnancy and lactation, the mammæ diminish in volume; they are usually at the menopause when uterine life becomes extinct; they commence a retrograde metamorphosis which distinguishes the atrophy of the essential anatomical elements of the mammary glands. Only the atrophied excretory ducts are left, interspersed with fibrous tracts, and surrounded with areolar adipose tissue.

The question now arises: Was this a true general hypertrophy of the breasts? Have the fundamental elements of these organs augmented in number and in volume? True hypertrophy of the glands is yet a mooted subject. Labarraque maintains this position, and cites others to maintain him in it. While Labbé and Cayne, in their excellent work on tumors of the breasts, range it to the side of *diffuse fibroma* of Virchow.

According to Virchow, the starting point of the morbid proofs and the seat of the lesion of a diffuse fibroma, lies particularly in the connective and interlobular tissue.

In consequence of its situation in the midst of a tissue, whose nutritive activity has become considerable, which presents a rapid growth, it often occurs that the glandular *culs-de-sac* participate in this hyperplastic work. The acini enlarge in every direction; the cubic epithelium which lines them, tumefies and becomes more abundant than in the normal state. At other times, the glandular elements seem to remain absolutely indifferent to the hyperplasia which goes on around it, and the epithelium appears to preserve its form and nature. This variety alone is, according to Birkett, the true hypertrophy of the mammæ.

We are, of course, unable to furnish histological proofs for our diagnosis of these tumors, but we believe that to the proliferated connective tissue of diffuse fibroma, infiltrated with fat cells, which constitute the greatest bulk, is added the hypertrophy of the galactophorous conduits and of the acini. On the surface, and in a certain depth, loose clusters of glands can be felt, which alone would form a larger mass than the normal

mammæ. Allowance must also be made for glandular ramification, buried in the tumor, which escape the touch. The want of lacteal secretion after accouchment cannot be accepted as an objection, for the hypertrophic alteration of the acini, and of their epithelium is precisely incompatible with the regular function of that organ.

We found no tumefaction in the adjacent region, nor any enlargement of the lymphatic ganglions. This is indeed charactreistic of benign tumors. Their weight and bulk disturb the function. They absorb the nutritive resources, and are liable to erysipelas, suppuration and ulceration, but their consecutive alterations have nothing in common with malignant tumors.

The development of these tumors is slow and continuous, but it is not rare to see them increase by oscillation or by successive growth.

In many tumors, says Broca, the growth is without limit, almost indefinite. At other times, they remain stationary after having attained a certain volume, and nutrition is going on in them as in healthy organs. It is not often that tumors, after existing some time without change of volume, diminish either spontaneously, or after treatment, and this process of resolution can end in complete resorption of the accidental tissue. This happy solution is never seen in cancer, in chondroma, but occasionally in glandular hypertrophy and adenoma. The resolution of tumors is comparable to atrophy of physiological tissue. It is owing to the predominance of the decomposition over the composition of the anatomical elements in the nutritive process.

In the present case, marriage and pregnancy have interrupted in favor of decomposition, the equilibrium which seemed to have been established in these immeasurably enlarged breasts, stationary so many years, and have brought about a new condition in their existence, when their nutrition became of minor importance.

This result is so much more notable, as it is in opposition to generally observed and admitted facts.

It is well known that pregnancy certainly influences the development of the breast. Joerdens and others insist that hypertrophy begins with every pregnancy, and diminishes in the intervals. In this case, if the menstrual derangement took part in the etiology of the hypertrophy, it would be difficult to deny the influence of marriage and pregnancy upon the atrophy.

Sir Astley Cooper has met with similar cases, for he regards celibacy a predisposing cause of mammary hypertrophy; he even advises marriage. Has not Prof. Velpeau indicated conjugal union as the proper treatment?

The observation of this case, proves how much our *a priori* reasoning can be controverted by facts, for we are at best ignorant of the many hidden resources of nature. Surely, none would have advised marriage in such a monstrosity. But she desired it, and most marvelous, she found a husband, and the result legitimizes her conduct; for, from the moment that her sexual functions were brought into active exercise, her condition improved.

Proceedings of Medical Societies.

Lewis County Medical Society.

The Lewis County Medical Society met at Monticello, Mo., April 21st, 1879, Dr. R. S. Briscoe, of Lewistown, President, in the chair. Fifteen members were present.

Reading of the minutes was dispensed with, they having been published in the St. Louis Medical and Surgical Journal.

Drs. C. P. Vincent, Steffinsville; J. E. Hope, Lewistown, and A. J. Magee, Tolona, were elected to membership.

A reading of the Code of Ethics of the American Medical Association and the By-Laws of this society were called for and read.

Dr. R. J. Christie, of Monticello, presented W. R——, a case of chronic pneumonia, which presented some very interesting and unusual features, and gave the history and treatment.

This case elicited a very general discussion on pneumonia.

Dr. W. S. D. Johnson, of LaBelle, presented Robt. E——, the case of hypertrophy of the heart, which was before the Society in February.

The case was examined by Dr. Christie, whose remarks were very interesting and instructive.

Dr. W. S. D. Johnson presented Mr. S——, a case of hypochondriasis, with great lack of nerve force, the pulse often falling as low as 30 to 40 per minute. He presented a son of Mr. S—— also, a case of synovitis with anchylosis of the knee-joint.

Dr. Christie, presented a child of W. B——,a case of talipus equino-varus, and gave a history of the case under treatment after the plan of Barwell and Sayre, and to hasten the cure proceeded to divide the tendo achilles, and retain the foot in position with adhesive straps.

Dr. J. R. Lucas gave the history of a case of puerperal eclampsia, in which he gave a more heroic treatment than in the case reported at the February meeting. In this case, after the first convulsions, he gave 30 drops of Norwood's tinct. veratrum viride; in half an hour gave 35 drops, and another spasm coming on soon after, he gave a teaspoonful of the veratram viride, which effectually quieted the spasms, and *did not* produce any alarming symptoms, and she made a good recovery.

This case elicited a general discussion of the toxic properties of veratrum viride.

Dr. Lucas said Stelle, after giving the symptoms of an excessive dose, says: "Alarming and apparently dangerous as these symptoms are, it does not appear that they have terminated in death."

Dr. J. W. Hawkins, of Canton, said that he had good success with Dover's powders and ice to the head.

Dr. Lucas gave the history of the case of Mr. T——, aged 75, with pneumonia, in which he had three relapses. After some unusual exertion he was taken suddenly with great dyspnœa, tumultuous and cardiac distress, etc. He diagnosed heart-clot. Ammonia was administered freely, and in a few hours the thrombosis was dissolved, and the patient made a good recovery.

Dr. R. C. Risk was elected a delegate to the State Medical Association with Dr. J. R. Lucas as alternate.

This being the annual election of officers resulted in the election of the following:

President—Dr. R. S. Briscoe, of Lewistown.

Vice-President—Dr. J. W. Hawkins, Canton.

Secretary—Dr. R. C. Risk, Williamstown.

The following resolutions were adopted.

Resolved, That we deem it the duty of every regular physician in the county to become a member of this Society; to aid in its deliberations for the education and elevation of the profession; to lend his counsel and experience for the general good; and to those who may refuse, and prefer to put their light under a bushel, will not be called or met in consultation after the regular meeting in June.

Resolved, That the thanks of this Society are due, and are hereby tendered to the ST. LOUIS MEDICAL AND SURGICAL JOUR-

NAL for publishing the proceedings of this Society, and we hope Dr. Rumbold may still extend this favor.

Moved that the Secretary be instructed to furnish the ST. LOUIS MED. AND SURG. JOURNAL and the *St. Louis Courier of Medicine* with a copy of the proceedings for publication.

Moved to adjourn to meet at Monticello on June 16th, 1879.

Dr. R. S. BRISCOE, President.

R. C. RISK, Secretary.

DIRTRICT MEDICAL SOCIETY OF NORTHWEST MISSOURI.

The fourth annual meeting of the District Medical Society of Northwest Missouri was held in St. Joseph, April 10th.

The Society was called to order at 10 A. M. The President, Dr. Catlett being absent, Vice-President Dr. Trevor presided, Dr. J. P. Chesney acting Secretary pro tem, Dr. Geiger, the Secretary, being also absent.

On the roll being called, the following members answered: Drs. Bryant, Goslin, Wilson, McAdow, Hoffman, Simmons, Heddens, Trevor, Donelan, Siemans, Doyle, Geiger, France, Chesney, Richmond, Bergoff, Busey, Knight, Smith, Christopher, Craig, Leigh, Brownlee, Williamson, Kearney and Farr.

The committe on the programme of exercise, reported as follows: Afternoon session—1st, Election of officers; 2d, essay by Dr. C. J. Siemans; 3d, Voluntary contributions, oral or written. Night session—1st, Essay, by Dr. D. J. Christopher; 2d, Discussion of the regular subject, viz: "What are the most suitable remedies to improve appetite, digestion and assimilation; 3d, Reports of cases.

Dr. A. McMichael, of Rockport, Mo., petitioned the society for membership; he is recommended by Drs. Bryant and Chamberlain. The petition was referred to the Committe on Elections who reported favorably, and the Doctor was then balloted for and elected a member.

AFTERNOON SESSION—The Society convened at 2 o'clock, Vice President Dr. Trevor in the chair; Dr. Geiger, Secretary.

Dr. Richmond introduced Dr. Tuttle, of Hamilton, Mo., a member of the Grand River Medical Society, who was welcomed by the Chair.

Under the regular order of business, the following gentlemen were elected as officers for the year: President, Dr. A. Goslin; Oregon, Mo., First Vice President, Dr. E. A. Donelan, St. Joseph, Mo.; Recording Secretary, Dr. D. J. Christopher, St. Joseph, Mo.; Corresponding Secretary, Dr. J. M. D. France, St. Joseph, Mo.; Treasurer, Dr. T. H. Doyle, St. Joseph, Mo.; Librarian, Dr. F. A. Simmons, St. Joseph, Mo.

A valedictory address was read by the Secretary, from Dr. Catlett, the retiring President.

Dr. Hoffman presented to the Society a perfect specimen of an anencephalus fœtus. Dr. Simmons made some interesting remarks on the specimen, and reported a similar case that occured in his practice.

Dr. Heddens read a voluntary paper on hemorrhage from the impregnated and unimpregnated uterus, which was discussed by Drs. Doyle, Bryant, Leigh snd Simmons.

EVENING SESSION—The Society met at 7½ P. M., President Dr. Goslin in the chair, Dr. Christopher, Secretary.

Dr. Christopher read a paper on irritability of muscular fiber, which was received. The regular subject was taken up and discussed by Dr. Simmons, Heddens, Richmond, Doyle, Goslin, France and Donelan.

Dr. Leigh reported a case of amputation of the arm in which he used the antiseptic spray of Lister. The ligature come away on the eighth day, the stump healed in sixteen days. Dr. Bergoff reported a very interesting case of fracture of the ankle joint. Quite an interesting case was reported by Dr. Busey of inflammation of the middle ear, followed by hemiplegia, on which remarks were made by Drs. Doyle, Leigh and Goslin. Dr. Hoffman reported a case of generating wound of the great toe followed by gangrene. Amputation was resorted to, and in a short time an abscess made its appearance in the opposite foot. Dr. Craig made some very interesting remarks on the case.

After the appointment of the standing committees, the Society adjourned to meet July 10th, 1879.

ABINGDON ACADEMY OF MEDICINE.

The Abingdon Academy of Medicine, held its regular annual meeting at Abingdon, Va., at the office of Dr. H. M. Grant, Dr. J. S. Apperson, President, in the chair.

The following gentleman were elected officers for the ensuing year:

President—Dr. W. F. Barr.

1st Vice-President—Dr. Geo. E. Wiley.

2d Vice-President—Dr. T. D. Kernan.

Cor. Secretary—Dr. R. J. Preston.

Rec. Secretary and Treasurer—Dr. H. M. Grant.

The following gentleman were unanimously elected Honorary Fellows of the Academy of Medicine: Drs. J. S. D. Cullen, R. T. Coleman, Richmond, Va.; J. H. Claiborne, Petersburg, Va., A. M. Fauntleroy, Staunton, Va.; S. M. Bemiss, New Or-

leans, La.; H. F. Campbell, Agusta, Ga.; J. J. Chisholm, Baltimore, Md.; W. N. Vance, Bristol, Tenn.

Dr. Apperson reported a very interesting and anomalous case in practice, that elicited a long and instructive discussion. Dr. Barr reported cases of sciatica which he had cured.

The fellows then engaged in the discussion of rheumatism, the subject selected at the previous meeting for discussion. Drs. Wiley, Apperson, Preston and Barr each entertained the Society with appropriate remarks on the subject, and it proved to be as interesting and instructive a meeting as has been held for many months.

Periscope of Current Medical and Scientific Literature.

MATERIA MEDICA.

NITRATE OF AMYL IN INFANTILE CONVULSIONS.—In a case reported by Dr. Engel, this agent was successfully used. The parents had lost three children previously by epileptiform convulsions of the same character as those affecting the present case. The child, eighteen months old, has continued in convulsions for five hours, and was apparently moribund, when as a last resort five drops of the amyl were given along with ¼ gr. of morphia. The child at once went off into a quiet sleep.—*Phil. Med. Times. Medical Record.*

SULPHO-THYMATE OF QUINIA.—Signor Cozzolino recommends the *sulpho-thymate of quinia*—a compound of sulphuric and thymic (thymol) acid and quinia—as worthy of ranking beside the sulphocarbolate or salicylate of the same alkaloid. It is freely soluble in acidulated water, in ether and in alcohol. Dose is the same as the above-mentioned salts. He also calls attention to soda-thymate as a pleasant carminative (dose: 6.50 gmm. for infants; 3.00 to 4.00 gmm. for adults) mouth-wash in aphtha and muquet, as an injection in vaginal, uterine, and vesical affections.—*Med. Rec.*

PILOCARPINE IN HICCOUGH.—Dr. Ortille was successful with gmm. 0.025 muriate of pilocarpine in curing hiccough which had resisted every remedy. The patient was 62 years old, and was suffering from symptoms of cerebral thrombosis. The singultus continued even while the patient was under the influence of morphia.—*Medical Rec.*

BROMIDE OF POTASSIUM.—In the *Allg. Zeit. fur Psych.*, Dr. Bettger contributes an article on the "Misuse of Bromide of Potassium," which has a general interest in view of the large quantities of this drug administered, and its supposed incapacity of doing harm. The author says that the long continued use of this remedy often gives rise to a well-defined disease,—*bromism*, which is characterized by weakness, lassitude, depressed action of the heart, cold extremities, heaviness of speech, a papular or pustular eruption and characteristic sweet odor of the breath. In a still higher degree stupor supervenes, memory and articulation are impaired, hallucinations occur, with tremor of muscles and unsteady gait, the pupils are unequal and inactive, sexual power and, in females, menstruation, are diminished. The diagnosis of this advanced stage from progressive general paralysis (paralytic dementia) is difficult. A fatal result is not uncommon. —*Maryland Med. Jour.*

VEGETABLE PEPSINE.—Mr. Wittmack calls attention to an interesting property of the juice of the papaw, or fruit of Carica Papays, that is, its power of rendering hard flesh tender, Fifty grammes of beef in one piece, enveloped in a leaf of the plant during 24 hours, at 15°C. after a short boiling became perfectly tender; a similar piece, wrapped in paper, and heated in the same manner, remained quite hard.

A fraction of a grain of the dried juice was placed with 10 grains of lean beef, in one piece, in sufficient distilled water, and boiled five minutes, below the boiling point, when it fell into several pieces, and at the close of the experiment it had separated into shreds. The following are the conclusions arrived at by the author: 1. The milky juice of the Carica Papaya is (or contains) a ferment which has an extraordinarily energetic action upon nitrogenous substances, and, like pepsine, curdles milk. 2. This juice differs from pepsine, in being active without the addition of free acid—probably it contains a small quanity—and, further, it operates at a higher temperature (about 60° to 65° C), and in a shorter time, (five minutes at the most). 3. The filtered juice differs chemically from pepsine, in that it gives no precipitate on boiling, and further, that it is not precipitated by mureuric chloride, iodine and all the mineral acids. 4. It resembles pepsine in being precipitated by neutral acetate of lead, and not giving a precipitate with sulphate of copper and perchloride of iron.—*Pharmaceutical Journal and Transactions.*

HYSTERO-TRACHELORRHAPHY is the simple prattle of the gynæcologist for the operation of sewing up a lacerated cervix. Dr. E. C. Dudly, of Chicago, is credited with the invention of the term, and according to Dr. Mundé, he still lives. Surely the gynæcologists are trying to make themselves as ridiculous as the eye-men in the selection of their terms. Imagine such a term as the one above being used for "convenience," sake, as is averred!—*Louisville Med. News.* J. S. B. A.

Correspondence.

NEW YORK, 43 West 32d St., }
Feb. 12, 1879. }

EDITOR JOURNAL:

I thank you for your prompt reply to my note, asking you if you would republish from the *Hospital Gazette* of April 11th, 1878, an editorial, containining a reply to some portions of Dr. Edward Borck's paper, published a month earlier in your journal. I made this request at so late a day, because, when I wrote, I had just received a reprint of that and a previous paper, "with slight changes" issued in a pamphlet form; copies of which, the public is informed, are for sale at "all the leading book stores in the United States."

Among the "slight changes," I notice an omission of one or two misquotations, which had appeared in Dr. Borck's paper as originally published in your journal; but other misquotations and misstatements contained in the original papers, and referred to by the *Gazette*, were repeated. It is this repetition and wider circulation of the errors, which has induced me to ask of you this favor.

There is one point not considered in the "editorial" which I may be permitted to refer to, namely: that when Dr. Borck, Dr. Bauer and others, allude to the results obtained by me in the treatment of fracture of the femur and other long bones, they seem to forget that in all my published writings, I have sought to show the average and particular results obtained by myself *and other surgeons*, and this too in the employment of all the approved forms of apparatus. It was only in the 5th edition of my treatise on fractures and dislocations, that any attempt was made by me to separate my own results from those obtained by other surgeons, (see p. 435, fifth ed.) and then only in the case of fractures of the thigh. If other gentlemen have been more successful than I have been, as shown by the results as there given, I am glad to know it; but they cannot ask me to accept of their statements until they have verified their observations and conclusions by an equal number of cases, examined with equal care and attested by one or more experienced surgeons, who have repeated the examinations; especially when, as in the case of Dr. Borck, no attempt is made to inform the public as to the extent of his experience. There are other reasons why we are not yet prepared to accept of his statements without further proof of their accuracy. There is nothing new in the prin-

ciple involved in the construction of his apparatus; nothing that has not essentially been applied before; and with no such results as he claims to have obtained. Indeed this is true of the method employed by all of the four or five gentlemen in this country, who claim equally good results as those claimed by Dr. Borck. Not one of them involves a principle that has not been tried before, or by others of equal skill, and with no such results. Yet they are widely different from each other; some getting their absolutely perfect results in the straight position, and some in the flexed position; some with extension, and some without extension. I refer to the "four or five" gentlemen who make these extraordinary claims, with dissimilar and opposite methods, because it is a fact that the number of those who publicly put forward such claims, does not, so far as I am aware, exceed five, and their claims are set up, *not against my experience*, with *my mode* of treatment, but against the experience of nearly every practical surgeon in this country and abroad. We have a right to demand therefore, some better testimony than the vague statements hitherto given to us. I would mention the names and the apparel employed by these few gentlemen who are not so "unfortunate" as I am, and others are, but that some of them would blush when placed face to face with each other; and they would be forced to declare, if they would remain consistent with their own published statements, that not one of the other four had spoken the truth, in short, that they were practicing a species of charlatanry. I would by no means intimate that these gentlemen are charlatans. My charity is broader than their own; but when one of the five gentlemen declares that the principle of extension is alone capable of making perfect limbs, and that if properly employed it will certainly, or almost certainly do it; and another declares that only by refusing to employ extension, can that end be attained, and that by such omission, upon a properly constructed splint, it will be attained; then we must see that they practically impeach each others veracity, or call in question each others capacity. Before Dr. Borck calls attention to my "unfortunate" results, and the equally "unfortunate" results of the large majority of surgeons, as admitted by themselves, it might seem proper that he should dispose of those other rival modes for which the inventors claim just as much as he does for his mode, perhaps more. He ought either give to them all his unqualified approval, or he should prove by argument or observation, that they did not and could not have obtained the results they claimed, and that there was a need, therefore, for his better method.

Finally my dear Doctor, permit me to add, that if I am jealous of my own reputation, and cannot look with indifference upon misrepresentations, which by their wide circulation may become established in the minds of a large proportion of my profession as established facts, I am still more jealous of the interest of the

science of medicine and surgery, and it is for its interest especially that I have asked for this space in your journal.

Yours truly, FRANK H. HAMILTON.

[Extract from the *Hospital Gazette* of April 11th, 1878.]

In the *St. Louis Medical and Surgical Journal* for March, 1878, there appears an article entitled "Review on the Treatment of Fracture of the Femur," by Edward Borck, M. D., which is supplementary to an article from the same writer published in the January number of the same journal, and describing his mode of treatment. The two papers are characterized especially by their misquotations of others writers and by a certain flippancy of style.

In the January number Dr. Borck says (quoting as he subsequently explains from the *Journal of Materia Medica* for Nov. 1877), that Dr. Hamilton declares "there will always be some shortening in these fractures." Dr. Hamilton has never said anything of the kind, as every intelligent medical man knows who has read his writings or listened to his teachings. Dr. Borck in the second, paper refers to Dr. Hamilton's "General Treatise on Surgery," and to his well-known "Treatise on Fractures and Dislocations," as if he had them before him when he wrote. Why did he not refer to these books for Dr. H.'s opinions rather than to the *Journal of Materia Medica*.

In the second paper Dr. Hamilton is quoted three times, the marks of quotation being employed in each instance. The language did not convey the impression that we were reading from Dr. H., and a reference to the lecture from which these quotations were made (*Medical Record*, January, 1878) showed that in neither was the quotation correct or nearly correct. We had supposed that every gentleman understood that in making a quotation from an author, and especially when the marks of quotation are employed, the writer is bound to use the words and punctuation of the author. Dr. Borck seems to think differently, and therefore exposes those whose opinions he handles to the risk of being so soiled before they are shown to the public that no one would recognize them, and the author himself would refuse to claim them.

Outside of the marks of quotation occurs the following passage: "Then he" (Dr. Hamilton) "passes in review different modes of applying splints, and is particularly disgusted with the double-inclined plane, charging in with shortening and with other faults. In this category he includes the lateral and coaptative splints. The Doctor tried these machines often in his early days, and never had obtained a good result, except by mere accident. He seems to be exceedingly unfortunate in the treatment of fractured femurs with the inclined plane and other apparatuses, while other surgeons, it seems, were very fortunate with these methods, and obtained what was called very good

results." The term "disgust" used by Dr. Borck to indicate Dr. Hamilton's opinion of double-inclined planes, is original with Dr. B.

Dr. Hamilton's real opinion will be better understood by reading the lecture referred to or by consulting his writings elsewhere.

If the phrase, "in the category he includes the lateral and coaptative splints" means anything, it must mean that Dr. Hamilton is disgusted also with coaptation and lateral splints. While the fact is, that in the lecture quoted from, and in all his published writings he has constantly urged the value of lateral or coaptation splints.

The last clause of the paragraph now quoted from Dr. Borck, contains a flippant slur, which cannot be passed unnoticed, not so much because of its utterance by Dr. Borck, as because it is the repetition of an insinuation to Dr. Hamilton's truthful representation of what has been accomplished by him in the treatment of fractures has subjected him to from others.

Whenever, of late, an American surgeon or mechanic patents a splint, and occasionally when the advocate of a particular mode of treating fracture has not patented his opinion, it has been found convenient, first, to state that Dr. Hamilton never makes a limb as long as it was before, or that he is "exceedingly unfortunate in the treatment of fractured femur;" and secondly, to affirm that the apparel now presented does make perfect limbs, neither of which statements are true. Thus a certain Dr. Parke, of Bloomington, Ill., whose useless splint is, we believe patented, says: "Prof. Hamilton says there is no splint yet devised that will prevent shortening of a fractured femur. I claim it is impossible for the limb to *shorten while in this splint.*" —(*Dr. Parke's Circular, p. 2.*)

Dr. Hamilton's views of the best treatment have been changed or modified from time to time, and in every successive edition he has carefully stated this modification, so that one who has read the first edition will scarcely find a form of apparatus approved by him to-day or illustrated in the last or 5th edition, or the German edition, which was recommended in the first, and in most cases the apparatus has been simplified, and brought more within the reach of the general practitioner. He still adheres to the straight position as that to be preferred in most cases; and he still pefers, *generally*, not to use plaster-of-paris in fractures of the thigh. In these respects his opinions have never changed.

If we have been led into a more prolonged review of the reviewers than was our intention, it was not because we desired to vindicate the views and practice of any gentleman, but because it seemed necessary in the interest of good morals and good manners. The matters of which we complain are not private grievances, but public, and we have, for that reason alone, given a public rebuke.

Editorial.

The Medical Association of the State of Missouri.

This Association meets at Columbia, the Athens of our State, on the 20th of this month. From present indications, a full meeting is anticipated. The *St. Louis Clinical Record*, of May, very aptly says:

"The Medical Association of the State of Missouri will hold its annual meeting at Columbia, on the 20th of the present month. We hope that every physician in the State whose health and business will permit will attend. Something may be hoped from the State associations; the interests of physicians in one commonwealth like Missouri are so much in common, there is so much good to be obtained from a free interchange of thought, of modes of practice and of social courtesies, that these local gatherings should be encouraged in every way."

Of course the discussions following are usually fully as instructive and interesting as the subject discussed. Fortunately, this year we are to have the *whole* proceeding published, not the bare papers only. There is one other means of preventing our candle from being covered, and that is by having the whole of the transaction published through one of our medical journals. Sending our papers and discussion to 2,000 readers, is a very great improvement on sending it to 200 *hearers*, as heretofore.

Book Notices and Reviews.

A Manual for the Practice of Surgery. By Thomas Bryant, F. R. S. C., Surgeon to and Lecturer on Surgery, at Gray's Hospital. Member and Correspondent de la Societie de Chirurgie, de Paris; Second American from the Third Revised and Enlarged English Edition. [Philadelphia: Henry C. Lea.]

This book, of more than 900 pages, has a very complete table of contents as well as a full alphabetical index, thus enabling the busy practitioner to easily turn to any subject he desires. After this is an introductory, which contains some valuable suggestions as to the manner of studying cases.

The variety of subjects treated is unusually great, and they are treated in a fresh, pointed style, and bear many marks of the author's observations, as well as evidence of careful study of other authorities.

The frequent reference to American authorities, is in marked

contrast with other works on the same subject by English authors generally. Only a few of the subjects can be reviewed. Some points in connection with malignant tumors will be noticed. The cause of "Cancer is Obscure." Local injury may determine the "seat." Paget traced hereditary influence in one of every three cases; Sibley found it in one of nine; the author in 222 cases traced hereditary influence in ten per cent and agrees with Mr. De Morgan, that all that he said with regard to the constitutional nature of cancer, applied equally to the constitutional nature of any, the smallest growths that can be found in the body."

"Sir James Paget has pointed out, however, that when a local disease is inherited, it passes from parent to offspring in the same tissue, if not exactly in the same place, whereas when cancer is hereditary it may break out anywhere."

"Cancer is a disease of adult life although it may attack a fœtus in utero." "Is most apt to attack an organ that has passed through the active period of its existence." "Is a disease of degeneracy."—Paget. The author holds that cancer "appears to be in its origin, a local disease, and becomes general, either by the juices of the primary tumor exercising an impregnative, spermatic influence upon other parts or by dissemination of its elements," as taught by Simon. The practical deduction from the theory of local origin is that "the earlier a cancerous tumor is removed the better, and the better prospect of a cure."

The treatment consists in "improving the general health," and protecting the part from mechanical injury. The author discards all local applications, "except for the relief of pain," advises the removal by the knife, galvano-cautery and caustics" in the order named, of the last he regard chloride of zinc as the best.

In speaking of contusions with large extravasations, the author holds, "when the blood remains fluid the surgeon must not be tempted to draw it off until all hopes of its absorption has been abandoned. To meddle in these cases is often injurious but when the blood has broken up and suppuration appeared, a free incision into the part, followed by the application of a poultice is good practice." The author advises that the knot made in stitching the intestines be left on the serous surface; a better method we think, is that of dropping the free ends of the sutures into the lumen of the gut. In the chapter on Lithotrity no mention is made of Bigelow's method. He advises the use of the gum catheter as the best instrument for the treatment of stricture and recommends that it be kept in the urethra during the treatment, only removing one to be replaced by a larger one and says the relief by this method is more rapid and more permanent than by the usual gradual dilatation and safer and more permanent than by rupture or by internal urethrotomy.

The author discusses the division of fracture of the neck of

the femur into intra and extracapsular and prefers to classify them into impacted and unimpacted, thus proposing a possible for an impossible distinction as capable of being determined at the time of injury and having a practical bearing on the treatment to be adopted. J. T. Hodgen.

Injuries of the Eye and their Medico-Legal Aspect. By Ferdinand von Arlt., M. D., Professor of Ophthalmology in the University of Vienna. Translated with the permission of the author by Charles S. Turnbull, M. D. [Philadelphia: Claxton, Remsen & Haffelfinger. 1878. 12 mo., pp. 196.]

This volume bears upon upon the back of its cover the inaccurate and misleading title, "Injuries of the Eye, Turnbull."

It is a translation from Professor Arlt's reprint of a series of articles which he contributed to the *Wiener medicinische Wochenschrift* in 1874, in the hope, as he states in his preface, thus "to call the attention of the medical public more generally to the necessity of a careful examination and a correct diagnosis of these affections."

The author modestly suggests that "Specialists will find little that is new in these pages;" it is, nevertheless, a book rather for the specialist than for the general practitioner, inasmuch as the author presupposes on the part of the reader "an acquaintance with the modern means of investigation," under which he includes the determination of the state of the refraction, the measurement of the visual field, and the use of the ophthalmoscope. The book treats of the injuries of the eye under the following heads:

I. Injuries produced by sudden compression or concussion.

II. Injuries produced by the entrance of a foreign body.

III. Scalds and corrosions of the eyeball.

A fourth chapter treats of such affections as are either feigned or produced artificially and intentionally.

It would be superfluous to bear witness to the excellence of any practical work by Professor Arlt. The English translation will be of value chiefly to such ophthalmic practitioners as do not read German. John Green.

Spermatorrhœa; its Causes, Symptoms, Results and Treatment. By Roberts Bartholow, A. M., M. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the Medical College of Ohio, Cincinnati. [New York: William Wood & Co., 1879. Fourth Edition Revised.]

The demand for a fourth edition of this monograph shows that the admirable and most praiseworthy object of the author has been fully attained, viz.: to place the subject upon a scientific basis, and to divorce it from charlatanism. He believes, very correctly, that spermatorrhœa is a neurosis, and that though

structural alterations of the genital organs are coincident with the trouble, they are seldom causative, but at the same time he acknowledges that certain organic lesions of the generative organs give rise to the nervous derangement which manifests itself in involuntary seminal emissions, and that the repeated excitement of the venereal orgasm, by unnatural means, produces an undue exhaustion and expenditure of nervous force, which manifests itself in the languor, weakness and mental incapacity of the habitual masturbator, or the insanity and idiocy that so often results from repeated self-abuse. He contends, very truthfully, that the lesions resulting from masturbation are those due to the expenditure of nervous force and derangement of the intimate and harmonious relation existing between the sexual system and the cerebro-spinal centres, and not to a mere loss of seminal fluid. After describing accurately the causes and symptoms of spermatorrhœa as a disease, and spermatorrhœa as a symptom of other diseases, he reviews in a clear and concise manner the various methods, surgical and medical, that have been recommended, giving due weight to all that have proven useful, and discouraging routine treatment. Cauterization, circumcision, compression and other mechanical methods are accorded their full value, and anaphrodisiacs and aphrodisiacs are also recommended in suitable cases. Camphor, bromide of potash, lupuline, ergot, nux vomica, phosphorus and cantharides, all serve a good purpose in some cases.

The author says that jaborandi, or its alkaloid, pilocarpine, is an efficient aphrodisiac, and is indicated in cases characterized by debility. He says: I have found it more efficient than any of the agents referred to; more efficient than phosphorus. Thirty minims of the fl. ext., morning and evening, is a sufficient dose. He also recommends tincture of cimicifuga (actea racemosa), as a valuable aphrodisiac in some cases, especially where there is much nervousness. This latter remedy acts most promptly and admirably in cases of chorea, by quieting the nervousness, and I should be inclined to give it in spermatorrhœa, with a view of accomplishing the same purpose. Gelseminum is also very highly recommended (as it deserves to be), in cases where nervousness predominates. The author, in my opinion, does not lay as much stress as he should upon the use of iron and nux vomica in *large doses*, for I know of no remedial agents that are adapted to so many cases, and accomplish so much permanent good. The muriated tincture with glycerine, or in a pleasant elixir, is the very best preparation that we can use, and should be administered for weeks in drachm and drachm and a-half doses, four times in twenty-four hours, with full doses of nux vomica, or ignatia amara.

As nothing is said of damiana, I presume that the author's experience with this much lauded and extensively advertised drug has been as unsatisfactory as mine. It is claimed, however,

by some respectable medical men, that most of the preparations of damiana are spurious, and consequently worthless, and I have to-day received some of the *genuine*, and intend to give it a fair trial. This work of Dr. Bartholow contains in a concise form and perspicuous style all the valuable information upon spermatorrhœa that is accessible to American practitioners, and should have a place in every medical library. Thos. Kennard.

Elements of Comparative Anatomy. By Carl Gegenbaur, Professor of anatomy, and Director of the Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B. A., Magdalen College, Oxford. The Translation revised and a Preface written by E. Ray Lankester, M. A. F. R. S., Fellow of Exeter College, Oxford, and Professor of Zoology and Comparative Anatomy in University College, London, 8 vo. pp. 645, 356 illustrations. [London: Macmillan & Co., 1878.]

It is almost unnecessary, even to call the attention of anatomists to a book bearing on its title page the names of Carl Gegenbaur and E. Ray Lankester, and to praise it is entirely superfluous. Prof. Lankester in his valuable preface, states that "We do not possess in the English language any modern work on comparative anatomy, properly so called; that is to say, a work in which the comparative method is put prominently forward as a guiding principle in the treatment of the results of anatomical investigation. The present work, therefore, appears to me to form a most important supplement to our existing treatises on the structure and classification of animals. It has, over and above this, a weighty and distinctive recommendation in that throughout, and without reserve, the doctrine of evolution appears as the living, moving investment of the dry bones of anatomical fact." He then proceeds to mention some new facts and views which have arisen since the German edition was published in November, 1877, and "to point out certain statements of fact, or of interpretation of fact, in which Prof. Gegenbaur differs widely from authorities usually followed in this country" (England), in regard to the nuclei of cells, reproduction of infusoria, origin of male and female reproductive elements from different germ-layers. Origin of the limbs of vertebrates, relation of the malleus and incus to the mandibular and hyoid arches; nomenclature of the lobes of the brain in fishes, nomenclature of the digestive tract, and other important subjects.

He then gives three schemes of classification, Prof. Huxley's, Prof. Gegenbaur's and his own; remarking that "It is by no means desirable that students should be taught to accept any one scheme of classification as finite. They should be taught to look upon these schemes as the condensed expression of an author's views—as the epitome of his teachings." Every teacher and student of anatomy ought to read, and be familiar with the first enty pages of the book, comprising the introduction and gen-

eral parts, which treat of the Structure of the Animal Body. 1st. Stages of the Animal Organism, Differentiation of the Animal Organism, Origin of the Organs, System of Organs, Change in the Organs, Correlation of Organs, Fundamental Forms of the Animal Body, etc.; and the special part, divided into nine sections treating of Protozoa, Coelentevata, Vermes, Exchinoderma, Arthropoda, Brachiopoda, Mollusca, Tunicata and Vertebrata must be of great interest and value to the special student of comparative anatomy. The book is published with unusually fine illustrations, paper and print, and fails only in the usual weak point of English text-books, that of binding.

H. T. Boutwell.

[Through the courtesy of the London publishers we have received the following books for notice. Several of these are already well-known, though none of them are as generally sought after by the American profession as they deserve to be. This however is only because they have not been sufficiently introduced.]

Goulstonian Lectures on the Natural History of Pulmonary Consumption. By A. B Shepherd, M. A., M. D., F. R. C. P; pp. 89. [London : Smith, Elder & Co.]

Pneumonia ; A clinical study. By Octavius Sturges, M. D., F. R. C. P. [London : Smith Elder & Co., 1876 ; pp. 336.]

Reports on Diseases of the Chest. 1875. By Dr. Dobell ; pp. 353. The same, 1876 ; pp. 307. The same, 1877; pp. 438. [London : Smith, Elder & Co., 1877.]

The little volume of Dr. Shepherd, has for more than a year had an honored place in the trans-Atlantic libraries and it should be better known among us. The first lecture is more particularly a comparison of other men's work and observations regarding the pathological changes in phthisis. In the second lecture, the author divides all forms of phthisis thus, (1) pneumonic phthisis where dead or dying tissue elements are found choking up the alveoli and bronchi and leading to further destruction of the respiratory organ ; (2) bronchitic phthisis, where changes occur in the walls of the bronchi and vesicles; (3) fibroid phthisis from alcoholism, syphilis or anthracosis. In the third and last lecture the hereditariness of phthisis is argued and the mean duration and prognosis considered. Williams has (1871) placed the average duration of phthisis at eight years and our author is even more encouraging, for he says "I see from time to time cases of the chronic form of cheesy phthisis keeping the almost 'noisless tenor of their way' with but little if any change in physical signs, and I cannot but suppose that the body becomes habituated to the changed circumstances of life," or in other words the cheesy form of phthisis is not necessarily hopeless. Small doses of cod-liver oil are called for in many cases and large ones never, but such agents as pancreatic

preparations are thought to be useless. Thirteen handsome, accurate plates in color of microscopical preparations of the different forms of phthisis are no mean addition to these lectures. The publishers' work is faultless.

The writings of Sturges have also a place in English medical literature. After reviewing the history of pneumonia, the definitions and descriptions as offered by different authors are given, and then comes several interesting chapters on the physical characteristics. Afterward the complications of pneumonia are dealt with; delirium, rheumatism, pericarditis, renal diseases, alcoholism, starvation and other conditions in close relationship to pneumonic inflammation are considered in detail. Pythogenic or epidemic pneumonia, so frequently referred to in the medical periodicals since this book was issued, is well described. Then follows a study in morbid anatomy. This is so complete and withal so important that we refer to it at length and in succession.

(1) The pouring out of an exudation into the air vesicles through a large district of lung, yet variously in various parts of it; first of a mere watery fluid, presently of the fluid plasma of the blood with its formed elements and here and there, at separable little points, by actual rupture of undisguised blood. Along with this exudation or hemorrhage, a corpuscular generation takes place, representative partly of imigrated white corpuscules, partly of epithelial growth. So soon as the exudation begins to solidify, these products become apparent, entangled in the meshes of it. Next, this intervening network itself disappears and the closely crowded corpuscles are held together by their own stickiness. They too are undergoing change, some of them resolving into fat and represented by coarse granules; then comes a lowering of this corpusculated mass,its granular transformation, liquefaction and final removal mainly by absorbtion. Catarrhal proliferation is a variable incident of this process, sometimes aiding, sometimes retarding and sometimes arresting it. In the failure of this process of removal, the proper lung structure becomes implicated secondarily. The corpusculation, which was at first wholly intra-alveolar, begins to infiltrate the alveolar wall and both here and there to assume the character of pus. The boundaries of the several air sacs are thus rendered indistinct, owing to this common implication and are soon only to be made out by faint and cloudy paths. At length these partitions breaking down at many points and coalescing with the alveolar contents, there remains no more than the débris of lung structure recognizable chiefly by scattered pigment.

(2) The theater of the pneumonic process, so far as the lung is concerned, is not the lung texture but the lung spaces. The implication of the alveolar walls is secondary and accidental. In the ordinary non-fatal career of the disease it is probable that these undergo no structural change, as it is certain that they sus-

tain no permanent injury from this temporary lodgment of a morbid product.

Pneumonia is said to occupy a middle place between the specific fevers, so-called, and the local inflammations. It falls short of one by wanting the material of infection and a period of incubation (found, however, in some of the epidemics but recently reported), it exceeds the other by possessing the character of orderly pyrexia and definite duration.

The author is careful, and justly so, to distinguish between pneumonia and phthisis. The latter necessarily involves the lung structure; the former, only occasionally, and then secondarily. Phthisical and tubercular subjects are not more prone to pneumonia on that account; yet an attack of pneumonia may in rare cases hasten the development of acute phthisis.

Good judgment is shown in the section on treatment. After noticing most of the remedies that have been used in pneumonia, this solid, honest result is reached; that the supporting treatment is most to be relied upon—*i. e.*, quiet, rest, nutritious diet, alcohol in sufficient quantities, where there is prostration, and quinine where the pyrexia is great. A point of no little moment, which our author fails to mention, is the assistance that may be given to the muscles of respiration when the muscular power is depreciated, by the use of a nervine agent, such as nux vomica or strychnia. Another matter of therapeutical value omitted is the relief obtained by the partial fixation of the invaded lung by the compress and bandage, the only safe substitute for the reprehensible practice of giving opiates in pneumonia. But the many excellencies of the book more than compensate for these and a few other inadvertencies. This is a book of value to any one who wishes to study carefully the important subject of which it treats.

The excellent compilations, made by Dr. Dobell, are intended to be a complete *précis* of the work of each year in the department of practical and scientific medicine, which includes the anatomy, physiology, morbid anatomy, pathology, diagnosis, etiology, therapeutics, climatology, etc., etc., relating to the thoracic organs. These year-books are most valuable for reference as an epitome of recent discoveries and research. The author is assisted by a large corps of coadjutors, who furnish reports from all parts of the world. Among them we may mention Bowditch, Da Costa, Draper and Flint, in the United States; Tobold, Gerhardt and Jürgensen, in Germany; Schrötter and Langer, in Vienna; Villemin and Larcher, in Paris, while every nation and language of to-day, where science has found a place, is represented. These names are a sufficient guarantee of the worth of the volumes, even were the principal editor less distinguished than he is. It is needless to detail the many good points in each volume, for each is full of little books, which, having found favor when first published, are here condensed and

arranged carefully and conveniently. Hereafter these reports will no longer be annual, but will appear at such times as the accumulation of important material may render advisable.

William Porter.

Lectures on Localization in Diseases of the Brian. Delivered at the Faculte de Medicine, Paris, 1875. By J. M. Charcot, Professor in the Faculty of Medicine of Paris; Chief of Salpetrieré Hospital; Member of the Academy de Medicine; of the Clinical Society of London; President of the Society de Biologie, etc., etc. Edited by Bousneville. Translated by Edward P. Fowler, M. D., of New York. 1879.

This book is presented just at the time such a thorough digest of this subject is needed, and the reputation of the author in analytical reasoning would justify us in anticipating just such a clear demonstration of the principles upon which the question of cerebral localization rests.

The book contains 130 pages, and comes in substantial cloth binding and is, in its workmanship, excellent. It is amply illustrated by plates displaying magnified views of cortical cells, and also a large number of sections of the brain, both normal and morbid, admirably presenting to the eye the topography of the region under consideration; this I regard as a very important feature of this book, and calculated to keep well before the mind continuity of structure, as well as the reciprocal influences of the various structures upon each other.

In the author's preface he indicates the only rational plan upon which so complicated a subject can be fairly elaborated.

"The secure basis of induction," he says "I have selected, as occasion required information, furnished by normal anatomy, experimental physiology and clinical observations, illustrated by minute and methodical examination of organic lesions."

The greater part of this work is devoted to the normal anatomy of the brain and its morbid states and lesions; the second and third lectures we regard as remarkably interesting in the fact of delineating the *structural character* of the ganglionic nerve cells—their form, size, nucleus, nucleolus, and the relation to location of these cells in the five different layers of the cortex; also, interesting, in the fact, that reasons are found in the composition of these cells, for locating the sensorum in the posterior portion of the brain. *Phrenology had only deductions*; and as soon as its professed or assumed localizations were examined under the tests furnished by analysis of primary structures and their lesions, it was left without a foundation; it had in reality no demonstrative substructure. We are led to expect that following this work, as more properly a continuation will be a demonstration of the relation and dependence of psychical phenomena, with, or upon the cortex, and we trust he will by anatomico-pathological study of the encephalon, given to the stu-

dent of mental physiology something more positive than has yet appeared. He indicates in his last chapter that in his next lectures he will give more attention to "localization in the cerebral cortex," and which he justly designates as a difficult study.

C. W. Stevens.

Differential Diagnosis; A Manual of the Comparative Semeiology of the More Important Diseases. By F. De Havilland Hall M. D., Asst. Physician to the Westminster Hospital London. American Edition, with extensive additions. [D. G. Brinton, Philidelphia Publsher. 1875.]

This work, like its numerous congeners, fairly subserves its purpose, and is not without merit in some respects. Yet it possesses no quality deserving of special recommendation. It was evidently intented by its auther, Dr. Hall, to be a very modest little work, comprising a "*Synopsis of the Diseases of the Larynx Lungs and Heart,*" in which the differential diagnosis of these affections was conveniently illustrated in a tabular form. The American editor (whose name does not appear,) has applied the same method of tabulation to "all the other more common diseases," thus very much enlarging the original volume. This method of tabulation, although it has its manifest conveniences, enforces a certain amount of formality, which compels the omission of many little points which frequently prove of vital importance in diagnosis. The effect is to cramp two or more diseases into certain patterns, cut for the occasion, and thus contrast them. This answers a good purpose in the main, especially for students who are too lazy to read up their cases thoroughly, but for experienced practitioners, who are looking for the *nice points*, for the obscure features of disease, it is worse than worthless. This book, and many others like it, is simply a hasty and imperfect compilation of many facts, and some errors hitherto published by others. To a man really capable of making a diagnosis, it will prove of little value, to the inexperienced it will be a convenience, though we would advise all such to read up their cases in some fuller treatise, otherwise they would find themselves "tripped up" when they least expected it. W. Coles.

Hints in the Obstetric Procedure. By Wm. B. Atkinson, A. M. M. D., Physician to the Department of Obstetrics and Diseases of Women, Howard Hospital, etc. [Philadelphia: D. G. Brinton, Publisher, 1879.]

This little brochure of 120 pages whilst it does not aspire to a complete *vade mecum*, contains a great many useful hints in obstetrics, but none, so far as we can discover, which have not been fully set forth in the many well-known works on midwifery. The young practitioner will find it convenient and reliable for reference. The volume before us has been carefully revised and brought fully *en rapport* with the latest authorities. Its teachings are sound and excellent. W. Coles.

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature

THERMOMETER, FAHRENHEIT—MARCH, 1879.

Day of Month	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	33.0	48.0	18	21.0	39.0
2	31.0	43.0	19	23.0	41.0
3	30.0	33.5	20	7.0	44.0
4	34.0	47.0	21	31.	44.0
5	34.0	51.0	22	39.0	44.5
6	45.0	62.0	23	30.0	61.0
7	48.5	77.0	24	49.0	57.5
8	58.5	78.5	25	40.5	60.0
9	61.0	76.5	26	49.5	74.0
10	56.5	77.5	27	47.0	75.0
11	43.0	58.0	28	36.0	**84.0**
12	40.0	66.0	29	52.5	76.0
13	45.0	55.0	30	42.0	61.0
14	22.5	35.0	31	41.5	53.5
15	28.0	34.0			
16	22.5	25.5	Means	39.3	55.1
17	**15.5**	30.5	Monthly Mean	47.2	

Quantity of rainfall, 1.85 inches.

ERRATA.—The minimum in December, 1878, was —1.0 on the 24th. The minimum in January, 1879, was —10.5 on the 3rd.

Marine Hospital Reports.

RIO DE JANERIO— For the 5 weeks ended March 1st, the total deaths averaged 215 per week, an annual ratio of 37. During the 5 weeks, small pox caused 31 deaths; pernicious fever, 48; yellow fever, 168 deaths. The latter disease has steadily increased during the period, and official information has been received that the statement of deaths published is probably far short of the actual number.

GREAT BRITIAN—Week ended March 22nd. The average death rate in 23 large towns was 28 per 1,000. Rate in Dublin, 34; Sheffield, 32; Manchester, 31; London, 30; Liverpool, 28; Glasgow, 25; Brighton, 23; Edingburgh, 16. Whooping-cough and measles were excessively fatal in several towns, and the deaths from acute lung diseases were still on the increase in London, causing 705 of the 2,085 deaths reported for the week. Small pox caused 16 deaths in London, and 14 in Dublin.

PARIS—Week ended March 20th. Deaths, 1,108; annual rate,

29; small-pox caused 15 deaths; enteric fever, 29; diphtheria, 27.

GERMAN EMPIRE—Week ended March 15th. In 146 towns the average deaths rate was 27.2. At Berlin, 24; Hamburg, 27; Dresden, 26.5; Cologne, 25; Frankfort, 24.3; Munich, 32; Strasburg, 38.

The *Rinderpest* is extending in Bohemia.

Small-pox caused 58 deaths at St. Petersburg; 15 at Vienna; 13 at Buda Pesth and 3 at Geneva.

At the latest advices from Bombay, Calcutta, and Madras fevers were very prevalent, and small-pox caused numerous deaths in each city.

The Surgeon General of the U, S. Navy has furnished the following facts in regard to the recent outbreak of yellow fever on the U. S. Steamer Plymouth. On November 7th last, four cases of yellow fever occurred on board the vessel while lying in the harbor at Santa Cruz; these were removed to the hospital on shore, and the ship sailed for Norfolk. Three mild cases occurred during the voyage, and the Plymouth was ordered to Portsmouth, N. H., thence to Boston. At the latter port everything was removed from the ship, and all parts of the interior freely exposed to a temperature which frequently fell below zero, the exposure continuing more than a month. During this time the water in the tanks, bilges and in vessels placed in the storeroom was frozen; one hundred pounds of sulphur were burned below decks, this fumigation continuing for two days, and the berths, decks, holds and store-rooms were thoroughly whitewashed.

On March 15th the ship sailed from Boston southward; on the 19th, during a severe gale, the hatches had to battened down, and the berth deck became very close and damp. On the 23rd two men show decided symptoms of yellow fever, and on the recommendation of the surgeon the vessel was headed northward. The sick men were isolated, and measures adopted for improving the hygienic condition of the vessel and crew. The surgeon reported that he believed the infection to be confined to the hull of the ship, especially to the unsound wood about the berth deck, all the cases but one having occurred within a limited area; and that while the Plymouth is in good sanitary condition for service in temperate climates, should she be sent to a tropical station, probably no precautionary measures whatever, would avail to prevent an outbreak of yellow fever.

J. B. HAMILTON, M. D.,
Sur. Gen. U. S. Marine Hospital Service.

[The fact that the *Plymouth's* crew was attacked with yellow fever after the vessel had been exposed for more than one month to a temperature that was lower than zero, will cause some uneasiness in the minds of those who have advocated the use of ice as a disinfectant.—EDITOR.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of dails temperature in St. Louis are made with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimun occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature

THEAMOMETER, FAHRENHEIT—APRIL, 1879.

Day of Month	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	44.5	54.0	18	37.0	64.0
2	32.5	62.0	19	49.0	71.0
3	**26.5**	42.5	20	43.5	67.0
4	27.0	49.0	21	50.0	78.0
5	30.5	55.0	22	57.0	85.0
6	40.0	72.0	23	62.5	**86.0**
7	49.5	59.0	24	62.0	83.0
8	40.0	67.5	25	64.0	72.0
9	52.0	73.0	26	58.0	74.0
10	47.5	51.0	27	62.0	76.0
11	41.5	65.5	28	47.0	71.5
12	38.0	64.5	29	55.5	82.0
13	47.0	76.0	30	53.0	67.5
14	55.5	72.0	31		
15	42.0	55.0			
16	44.0	59.0	Means	46.5	66.9
17	38.0	53.0	Monthly Mean	56.7	

Quantity of rainfall, 2.07 inches.

MORTALITY REPORT.---CITY OF ST. LUIS.

FROM FEB. 23 1879, TO APRIL 22, 1879.

Septicæmia..... 1	Cholera Infantum	Hydrocephalus &	Apoplexy 9
Measles.....	Inanitio, Want of	Tubercular Men-	Canysis and At-
Syphilis Cong'al.. 2	Breast Milk,etc.36	ingitis..... 3	electasis..... 3
Scarlatina..... 3	Alcoholism..... 3	Meningitis and	Premature & Pre-
Pyæmia..... 4	Rheumatism and	Encephalitis 5	ternatural Birth. 14
Erysipelas.....10	Gout..... 3	All Diseases of the	Surgical Operat'ns
Diphtheria 9	Cancer 17	Brain and Ner-	Deaths by Suicide 7
MembranousCroup11	Phthisis Pulmon..85	vous System. ...29	Deaths by Accid't 9
Whooping Cough. 1	Bronchitis 26	Cirrhosis of Liver	
Gangrene	Pleuritis	and Hepatitis...24	Total Deaths from
Typhoid Fever.... 6	Pneumonia.....73	Enteritis, Gastro-	all Causes.....537
Cerebro Spinal Fe. 4	Heart Diseases....21	Enteritis, Peri-	Total Zymotic Dis-
Remittent, Inter-	Other Diseases of	tonitis, and Gas-	eases 131
mittent, Typho-	Respir'y Organs 17	tritis 7	Total Constitution-
Malarial, Con-	Entro-Colitis.. ...	Bright's Disease	al Diseases 163
gestive and Sim-	Marasmus — Tabes	and Nephritis... 4	Total Local Dis-
ple Continued	Mesenterica and	Other Diseases of	eases 241
Fevers.....19	Scrofula 23	Urinary Organs. 6	Total Develop'tal
Puerperal Disea's.14	Convulsions.....17	Recto-Pharyngeal	Diseases 17
Diarrhœal " 8	Aneurism	Abscess 1	Deaths by Viol'ce 16

CHAS. W. FRANCIS, *Health Commissioner.*

DEATH RATES AND MORTALITY.

Per 1,000 Inhabitants, Annually, in the Laryest Amerscan and Foreign Cities According to the Latest Returns.

CITIES.	Population.	Date of Return.	Deaths from all Causes.	Annual Death Rate per 1000	Diph & Croup	Scarlet Fever	Pneumonia & Bronchitis.	Phthisis.
New York.	1,094,000	5 weeks ending April 5	2,873	27.58	85	228	507	355
Philadelphia	901,000	5 " " " 5	1,157	17.20	48	54	178	159
Brooklyn	528,000	5 " " " 5	1,114	20.51	65	68	219	219
St. Louis	503,000	5 " " " 5	537	11.10	20	3	99	85
Chicago	460,000	Month of March	645	12.16	74	31	..	63
Baltimore	365,000	1 weeks ending April 5	570	20.25	17	23	96	81
Boston	363,000	5 " " " 5	737	20.76	37	16	117	136
San Francisco, Cal	300,000	5 " " March 28	388	13.88	15	2	33	76
Cincinnati	280,000	3 " " March 29	504	18.86	14	44	35	39
New Orleans	210,000	4 " " " 30	369	22.80	3	..	53	80
Buffalo	170,000	1 " " " 5	137	12.59	24	16	3	19
Cleveland	162,000	5 " " " 5	279	17.86	17	5	25	18
Washington, D.C.	160,000	2 months ending Mar 31	712	25.13	15	31	..	137
Pittsburgh	145,000	5 weeks ending April 5	231	15.20	18	4	23	10
Newark	126,000	3 " " " 5	218	30.16	10	2	36	37
Milwaukee, Wis.	124,000	.....	.....	.....	..	..	..	..
Richmond, Va.	79,000	4 " " March 22	102	18.53	2	7	10	14
New Haven, Conn	60,000	5 " " April 5	26	22.50	1	1	..	..
Charleston.	57,000	5 " " " 5	91	16.64	4	..	..	11
Memphis, Tenn.	50,000	.....	.....	.....	..	..	..	..
Mobile	40,000	.....	.....	.....	..	..	..	..
Wheeling	30,000	Month of March	47	18.80	1	21	..	4
Savnnah	.....	.....	.....	....	..	..	..	..
Indianapolis	.....	.....	.....	.....	..	..	..	..
Sprinfield, Mass.	31,506	.....	.....	.....	..	..	..	..
Nashville, Tenn.	27,000	Month of February	54	23.91	..	..	..	..
Sacramento	25,000	2 months ending Feb. 28	59	14.60	..	..	..	..
St. Paul, Minn.	20,000	.....	.....	.....	..	..	..	..
London	3,621,000	1 week " Mar. 29	2,078	29.90	..	..	..	..
Paris	1,988,806	1 " " " 27	1,199	31.30	..	..	..	..
Berlin	1,049,171	1 " " " 8	572	26.10	..	..	..	..
Vienna	737,280	1 " " " 22	508	35.80	..	..	..	..
St Petersburgh	669,471	1 " " " 15	622	48.30	..	..	..	..
Bombay	578,156	1 " " " 29	487	31.00	..	..	..	..
Glasgow	538,338	1 " " " 29	273	24.30	..	..	..	..
Liverpool	531,682	1 " " " 29	264	25.60	..	..	..	..
Naples	475,407	December 10 to 16	277	31.60	..	..	..	..
Calcutta	429,535	" 29 to Jan. 24	409	49.60	..	..	..	..
Hamburg	406,101	February 2 to 8	217	27.00	..	..	..	..
Birmingham	388,884	1 week ending Mar. 29	197	26.40	..	..	..	..
Brussels	175,785	1 " " " 15	133	39.50	..	..	..	..
Manchester	361,819	1 " " " 29	207	29.90	..	..	..	..
Dublin	314,666	1 " " " 29	197	32.70	..	..	..	..
Leeds	311,869	1 " " " 29	147	24.60	..	..	..	..
Amsterdam	308,952	1 " " " 15	174	29.30	..	..	..	..
Sheffield	297,138	1 " " " 29	163	28.60	..	..	..	..
Rome	286,100	Dec 29 to Jan 4	91	16.70	..	..	..	..
Turin	227,846	Jan 26 to Feb 1	109	20.80	..	..	..	..
Alexandria	121,034	Jan 26 to Feb 1	149	36.50	..	..	..	..
Breslau	167,000	Feb 2 to 8.	141	27.20	..	..	..	..
Edinburgh	226,075	1 week ending Mar 29	78	17.90	..	..	..	..
Dresden	207,845	February 2 to 8	90	22.00	..	..	..	..
Bradford	191,046	9 week ending Mar 29	86	23.50	..	..	..	..
Salford	177,849	1 " " " 29	85	24.90	..	..	..	..
Nottingham	169,396	1 " " " 29	94	28.90	..	..	..	..
Hull	116,347	1 " " " 29	69	31.40	..	..	..	..

Trommer's Extract of Malt.

The rapidly increasing demand for our IMPROVED EXTRACT OF MALT, during the four years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here we are meeting a generally felt want.

Long experience in manufacturing Malt Extract has enabled us to completely overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or molding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while, by avoiding the expenses of importation, it is afforded at less than half the price of the foreign article.

The Malt from which it is made, is obtained by carefully malting the very best quality of selected Toronto Canada Barley. The Extract is prepared by an improved process, which prevents injury to its properties or flavor by excess of heat **It represents the soluble constituents of Malt and Hops,** viz: Malt Sugar, Dextrine, Diastase, Resin and Bitter of Hops, Phosphates of Lime and Magnesia, and Alkaline Salts.

Attention is invited to the following analysis of this Extract, as given by S. H. Douglas, Professor of Chemistry, University of Michigan, Ann Arbor.

TROMMER EXTRACT OF MALT CO:—I enclose herewith my analysis of your Extract of Malt:

Malt Sugar, 46.1; Dextrine, Hop-bitter, Extractive Matter, 23.6; Albuminous Matter (Diastase), 2.469; Ash—Phosphates, 1.712; Alkalies, .377; Water, 25 7 Total, 99.958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hager, that has been so generally received by the profession, I find it to substantially agree with that article

Yours truly, SILAS H. DOUGLAS,
Prof. of Analytical and Applied Chemistry.

This invaluable preparation is highly recommended by the medical profession, as a most effective therapeutic agent, for the restoration of delicate and exhausted constitutions It is very nutritious, being rich in both muscle and fat producing materials.

The very large proportion of Diastase renders it most effective in those forms of disease originating in imperfect digestion of the starchy elements of food.

A single dose of the Improved Trommer's Extract of Malt, contains a larger quantity of the active properties of Malt, than a pint of the best ale or porter; and not having undergone fermentation, is absolutely free from alcohol and carbonic acid.

The dose of adults is from a dessert to a tablespoonful three times daily. It is best taken after meals, pure, or mixed with a glass of milk, or in water, wine, or any kind of spirituous liquor. Each bottle contains 1 1-2 lbs of the Extract.

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EXTRACT	OF	MALT,	With	*Hops (Plain)*	$1.00
"	"	"	"	*Pyrophosphate of Iron (Ferrated)*	1.00
"	"	"	"	*Cod Liver Oil*	1.00
"	"	"	"	*Cod Liver Oil and Iodide of Iron*	1.00
"	"	"	"	*Cod Liver Oil and Phosphorus*	1.00
"	"	"	"	*Hypophosphites*	1.50
"	"	"	"	*Iodides*	1.50
"	"	"	"	*Alteratives*	1.50
"	"	"	"	*Citrate of Iron and Quinia*	1.50
"	"	"	"	*Pepsin*	1.50

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These little articles will be found of great value and convenience in the hands of the physician who studies to remove the objectionable properties of the medicines which he deems it necessary to employ.

Many drugs, among which we may note *roots, gums, emetics, capsicum, etc.*, which—either from the more immediate effect to be produced, or from some special action to be desired—the physician proposes to administer in the *crude* or *powdered* state, in preference to any form of preparation, are practically debarred from use in certain cases on account of their properties (appearance, odor, taste), and the difficulty experienced in swallowing them. It is frequently advisable to conceal from the patient the nature or identity of the drug, because of some idiosyncrasy, or of his imagination with regard to its peculiar effects on his system.

To be able to easily disguise these features of a remedy at the bedside of a patient, at a time and place when he cannot employ the assistance of a pharmacist, is a great desideratum to the practitioner.

Our Capsules will fully supply this want; a few trials will demonstrate all their advantages, among which we may enumerate the following:

Convenience.—A box (100 capsules) can be carried in the pocket without inconvenience, ready for use as desired. They may be filled with the medicine in a moment, thoroughly disguising its appearance, odor and taste, and are easily swallowed, thus gaining, if we may use the phrase, a foothold in the stomach for the drug, which would have been quickly rejected by the patient in its undisguised state.

Solubility.—We have endeavored to so *prepare our gelatine* that it will quickly dissolve under the combined action of the *warmth* and *moisture* of the stomach, requiring but little digestive action, and as a result, *our capsules can be employed in dyspepsia and other forms of irritable or torpid stomach*, when this propety is essential.

Therapeutical Effect.—The gelatine having become dissolved, the remedy is brought into contact with the surface of the stomach *under the most favorable circumstances*, and, if the case will permit, will soon be assimilated, and the desired results achieved.

Emetics are exhibited in capsules to great advantage, and quick returns may be confidently expected. In this respect capsules are in contrast to pills, which, from their form and constituents, gradually dissolve in the stomach, producing the effects desired from narcotics, tonics, etc., while they are not dissolved rapidly enough for the use to which powerful emetics are devoted.

Administration.—Capsules, can, of course, be applied to the administration of any class of medicines, either simple or in combination; yet they are especially designed for facilitating the act of swallowing such articles as *powdered roots* and *gums* (which, from their insoluble or glutinous nature, are liable to linger in the mouth too long), or for disguising the taste of *quinine, morphine, capsicum, oils, fluids* and *solid extracts, etc.*

Our Capsules are put up in neat sliding paper boxes, containing 100 each, for which we charge fifty cents each. *We will mail a box to any address on receipt of the price and three cents postage.*

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If you desire to procure any of our New Remedies, send for same to **Arthur Peter & Co., R. A. Robinson & Co., Louisville; Wm. Litterer & Co., Nashville; R. Macready & Co., Renkirt Hale & Co., Rauchfuss, Egner, & Co., C. A. Nulsen & Co.,** and **C. E. Potts & Co., Cincinnati; Richardson & Co., Meyer Bros & Co., A. A. Mellier, Jacob S. Merrill,** and **G. K. Hopkins & Co., St. Louis,** specifying "**P. D & Co's**" in all cases, by so doing you will ensure reliable preparations of the **true drugs.**

should like to hear from Dr. Stevens or Dr. Hughes, or any other gentleman who is familiar with cerebral diseases, if they can give me any information about this case.

DR. HUGHES:—Could he move his tongue?

DR. MONTGOMERY:—Oh, yes, sir, but he had difficulty in expressing certain words, and great difficulty in remembering anything.

DR. HILL:—The following case has been under my observation during the past three months: A gentleman came into my office, behaving very peculiarly; he attempted first to address me as "doctor," manifesting a wish to describe his disease; he would speak a few words and then repeat some of them, and afterwards stop, so that he entirely failed to communicate anything intelligibly. After several such futile efforts, he reached for my pencil and paper, signifying that he would write it for me. He wrote a part of a word or a word minus a letter, and behaved to a considerable extent just as has been described by Dr. Hughes. The only means of communication was for me to write a question, and obtain from him a simple "yes" or "no." He understood perfectly what was said to him, but his power of communication in any other manner was entirely lost. Upon examining his case I found the pupils of the eye dilated to their utmost capacity; he complained of severe supra-orbital pain, and his pulse was 108; there was a general excitement, part of which I attributed to the embarrassment; he seemed to fear that he would become paralyzed, and it was only after considerable assurance on my part that that would not be the case, that he quieted down. In the course of six or eight hours afterwards, his pulse declined to 80; pain in the head subsided somewhat, after the administration of doses of bromide of potassium. The following morning he had somewhat recovered his power of speech, although not completely. This condition lasted for nearly one week. I put him under the course of treatment spoken of by Dr. Montgomery, quinine and strychnia, with an extra quantity of quinine, keeping up the bromide of potassium. At the end of the week I tried another course of treatment; at which time, however, he had almost completely if not quite recovered his power of speech. He was an intelligent young man, and had a very correct idea of the serious character of the symptoms with which he was affected. It was the first case of the kind that ever came under my notice, and it puzzled me not a little.

Case of Ovarian Tumor reported by Dr. Bernays, and the Specimen Presented.

Date of first visit to the patient, September 1st, '79; age 42; born and resided some time in St. Louis County; has been married twice and divorced once; married in 1856 and 1876; has one child 22 years old. Her general appearance is tolerably

healthy; a robust looking woman, small size, blue eyes, dark hair; had a characteristic ovarian face; her complexion was light; her general system was in a good state of nutrition, but her subcutaneous adipose tissue not well developed; no eruption.

At the first visit I was not positive of the diagnosis. She had been examined by Dr. Hughes of Keokuk, Iowa, who was absolutely certain that she had an ovarian tumor.

There was tenderness at different places on the surface of the tumor (ovary) at different times. If she complained to-day of one side, at my next visit she complained of the other.

There seemed to be a low chronic peritonitis, during nearly the whole period of her disease.

In both lumbar regions the effects of pressure upon different organs at that time were very slight. She needed purgatives to move her bowels. There were evidences of pressure on the sigmoid flexure of the colon. The uterus is normal in situation, and was movable in all directions; vagina normal; a thin secretion on the vagina could be found at all times.

Since the 1st of December, 1878, she had not menstruated, and had been irregular since 1877. She said she had menstruated twice a month up to about three months before her death. This is probably not correct, but that she simply had hemorrhage from the womb, a slight hemorrhage at irregular periods.

I will remark, as a curiosity, that during the whole course of her disease, she never took a dose of morphine. Her mental condition was eccentric. She had no neuralgia, but was somewhat hysterical. The respiratory organs were all normal—no expectoration. She rested best on her back with the head high. Never better on one side than on the other.

As to moral causes, I mention the divorce, which is said to have caused her very great excitement. This took place about half a year before she had any signs of ovarian or abdominal tumor. She had been ruptured in her youth. She never had a fracture or any other severe accident. There was a numbness, and a sense of weakness of both legs in the beginning of her disease, which was almost constant. She had no pain in the breasts; the symptoms were always worse before menstruation. The tumor was discovered in August, 1878.

Dr. John Shore and Dr. John Moore had treated her, both giving purgatives. The treatment by the former, her usual medical adviser, was entirely for dropsy.

Dr. B. stated that the patient had also been visited by quacks and electricians. He had not been able to induce the patient to submit to an operation; if an operation had been performed, he thought her life might have been saved.

March 8th, 1879.

Cancer of the Stomach. By Dr. S. T. Newman.

Towards the latter part of October of the present year, I was requested to see Mr. S. æt, 65 years, of medium height, and somewhat plethoric, weighing about 190 lbs., and seemingly well nourished, though a little sallow. He was a man of active life and temperate habits.

For some time past he has been troubled with slight dyspeptic symptoms, which subjected him to but little inconvenience. On a few occasions he had vomited after an unusually hearty and rich meal, but *usually* there had been no vomiting or nausea after meals. His appetite had been fair. The bowels were disposed to constipation.

He consulted me because of uncomfortable feelings, which for some time he had felt in the left hypochondriac region, just below the margin of the ribs, extending backward towards the spine. His tongue was slightly coated; temperature and pulse normal, the former being about 99° F., and the latter about 65 per minute. To the left of the epigastric region, there was some hardness (but no well defined tumor), which, upon palpitation, and especially upon percussion, gave rise to considerable pain. Decubitus, mostly dorsal, though he could lie on his left side.

For his constipation, I prescribed an alterative mixture, and bismuth and pepsin for disordered stomach.

Next morning the bowels had been moved, which gave some relief. The bismuth mixture was continued, and milk diet with lime water was ordered. About eight o'clock that evening, I was sent for in haste, because the patient had vomited a large quantity of blood, which had caused symptoms of syncope, and a feeling of exhaustion. I prescribed ergot, gallic acid, and laudanum, and also quinine, and the use of ice. Next morning he seemed very much better, and during the night there had been no further hemorrhage. But apprehending the existence of some serious lesion, Dr. Ford was requested to see the case, and after a careful examination, made *a most grave* diagnosis. As during the next few days the patient complained of a very uncomfortable dull, dragging pain in the back, and also in the region of the stomach above indicated, another consultation was desired by the family, and Drs. Ford and Robinson were called. After examination and a full discussion of the case, it was agreed that for *the present* we would assume gastric ulceration, and so state to the family. In regard to treatment, we concluded to give the stomach all the rest possible by withholding entirely ingesta from it, and nourish the patient by injection. Accordingly four ounces of the best milk was ordered every six hours, and four ounces of beef tea also, so that one or the other was

administered every three hours. Every day or two, the bowels were to be moved by an injection of castor oil, turpentine and assafœtida, with a large quantity of water. The nutritive injections were uniformly retained and absorbed, as was shown by the fact that the bowels were moved only every few days. This means of alimentation was indeed successful beyond anything which I had ever known before. But the patient complained somewhat of hunger and thirst, and dryness of the mouth and throat. During ten days (which was the utmost limit to which the patient could be induced to continue this mode of alimentation) there was apparently very great improvement in the patient's condition. The pain became almost nil., and palpitation and percussion could be employed with but little inconvenience. In order to fortify myself against the rebellious tendency of the patient and his friends, I again requested Dr. Robinson to see the case—neither Drs. R. nor F. had seen the case since the consultation referred too, nor did Dr. F. again see it. We now felt compelled to allow the cautious use of food. We began by administering a few spoonfuls of milk at a time with lime water, which quantity was gradually increased to half a glassfull. But soon the patient became rebellious, and on one occasion, in the absence of his wife arose from his bed and helped himself to milk ad libitum, and on the return of his wife, informed her that he had availed himself of a long sought opportunity. That night he had another slight hemorrhage. From the apparent improvement which had taken place under the former treatment, Dr. R. and myself believed the disease to be gastric ulcer, and insisted upon a return to the former treatment, to which the patient readily assented. But he did not improve as before, and he became much depressed, complaining that we were starving him to death, although his condition showed that he was suffering but little for want of nourishment. On the 24th of Nov. we were informed that our services were no longer required, as the patient had concluded to place himself in the hands of a homœpath; so we did not again see him. Subsequently the wife informed me that he was getting well, and that the *little pill doctor* had purged him freely, bringing away enormous quantities of fæcal matter, by the use of large quantities of oil, while his pain was alleviated, by giving exceedingly small doses of morphine, viz: $\frac{1}{10}$ gr. every hour. It will be seen that if these doses were given only for one half of the twenty four hours, it would amount to $\frac{12}{10}$, or one grain and a fifth. We had been giving $\frac{1}{3}$ of a grain at night. Thus it will be seen that the homeopath was giving from three to four times as much morphine as we had been giving.

On the 4th of March he died, and an autopsy was made, at which Dr. Ford and myself were present, and were treated *with marked* courtesy.

The following conditions were revealed: Proceeding from

without to within, the colon—the first organ revealed—was found to be healthy; small bowels very anæmic, but not diseased; the liver was small, indurated and tinged with bile; gall-bladder much distended; greater curvature of the stomach, free from disease to within a few inches of the pylorus, when the tissue became densely and uniformly infiltrated with cancerous material. This condition did not include the pylorus, cardiac orifices, and lesser curvature of stomach, for its intra distance seemed covered with dense, nodulated scirrhous masses. These nodulations were marked and numerous in the vicinity of the junctions of stomach with the œsophagus, forming masses of similar nodulations, situated between stomach and spinal column, by means of stomach and œsophagus; were so bound to deeper and adjacent structures as to render separation very difficult; cancerous masses of disseminated character involved the head of the pancreas and part of the duodenum, and probably obliterated the common duct, thus accounting for the great distension of the gall-bladder; cancerous tissue extended from the diaphragm along the spine on both sides to the promontory of the sacrum, incircling the aorta (which was healthy,) and ureter on the right side; this mass from one-half to one inch thick, and from one and a-half to two inches wide on either side; the right ureter was occluded by pressure; right kidney was found after diligent search, and consisted merely of a collapsed bag, which had been accidentally punctured and from which was discharged a considerable quantity of thin, dirty looking fluid. This bag was found to be divided into crystoid cavities connecting with each other, but not with the calices or pelvis of the kidney. The right kidney was considerably hypertrophied because of vicarious function, but was mainly healthy. In the heart was found a very remarkable ossification, one and a-half inches long and half an inch thick; otherwise the heart was healthy, but the pericardium was adherent to the heart so as to obliterate the cavity. The lungs at their apices were adherent to the heart-wall, were crepitant and healthy. On opening the stomach, along its entire lesser curvature the characteristic lesions consisted of an ulcerated surface surrounding the cardiac orifice, from one to two inches wide, located mostly above and behind, and lodged in the denser and more nodulated cancerous masses as revealed by inspection. The center lesser curvature of the stomach and much of its exterior wall were infiltrated by a similar morbid growth. This curvature was much shortened by contraction.

It appears then, Mr. Chairman, that from the facts which have been disclosed by this post moretm, Dr. Robinson and I were mistaken in our diagnosis, but the symptoms of gastric ulcer and cancer of the stomach are so similar, and sometimes so identical, that I feel no apology for erring in diagnosis is needed.

Dr. Ford, who assisted in making the dissection of the tumor, can describe its condition better than I can, and I will be glad

if the doctor will come forward and demonstrate it. I will state in justice to Drs. Ford and Robinson, that no notes were kept of the case, and I may have made some errors in my statement.

DISCUSSION.

Dr. C. H. Hughes:—I would like to ask Dr. Newman whether this patient had the (grumous) coffee ground discharges, usually considered so characteristic in cancer of the stomach, and what are the antecedents of this patient with reference to the neuropathic diathesis. In regard to the nourishment of these cases, I have given with satisfaction a glass of milk, and a drop of creosote in each glass, three times a day.

Dr. Newman:—I will say I was entirely unacquainted with the patient's previous history, never having attended him before. It was stated to me that he had previously complained of what he considered dyspeptic symptoms; that on one or two occasions after a hearty meal he had vomited, but there had been no persistent vomiting. I interrogated him as to whether he was in the habit of vomiting after meals. With one or two exceptions he had not done so. His meals were ordinarily completely retained. In reference to the treatment of these cases, it is needless to say much. We all know that treatment is of little avail. Going on the hypothesis that it was gastric ulcer, and not cancer, of course I had some slight hope of benefitting the patient, though we know that gastric ulcer is almost as fatal as cancer in a man of his age. Next in regard to the use of creosote. It was, I presume, to remove nausea of the stomach. We know it is an excellent remedy for that kind of a sick stomach, but this patient was very little troubled during his entire disease with vomiting. During my attendance of over two months, he vomited perhaps not more than four or five times. On three occasions he vomited blood; on one occasion the quantity was very large; on the other two occasions, the quantity was small. I do not remember whether Dr. Hughes proposed any other question or not. If he did, I will be glad to hear it.

Dr. Hughes:—Had the patient been afflicted with epilepsy, insanity or any disease of the nervous system?

Dr. Newman:—That is a material point. The gentleman formerly had been insane, so I learned.

Dr. Hughes:—I desire to call attention to this as another case confirmatory of what I have stated to be my belief, that the cancerous and neuropathic diathesis, are, under certain circumstances, interchangeable; that an individual having been insane at one period of life may, long after the recovery from his insanity, become cancerous, and die of the latter disease. I do not wish to take up the time of the society, in reiterating what I have said before on this subject.

March 15th, 1879.

A Case of Enterocele Vaginalis Anterior.

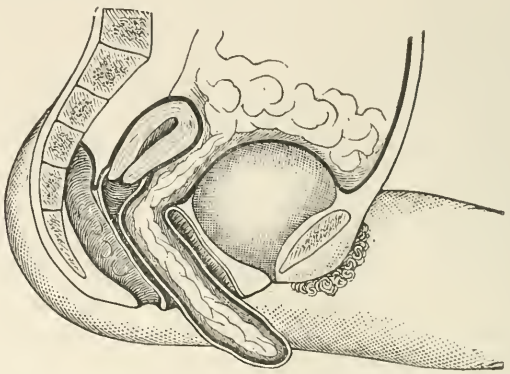
Possible hernias of the vagina are four. 1st. Prolapse of the anterior wall backwards containing the bladder, cystocele vaginalis. 2d. Prolapse of the posterior wall forwards, including the lower portion of the rectum, rectocele vaginalis. 3d. Descent of the posterior roof of the vagina containing a loop of intestines from Douglas' *cul-de sac*, enterocele vaginalis posterior. A case of this form of hernia vaginalis was met with by Dr. Meigs during parturition, which so obstructed the labor, that this could only be completed after pushing up the tumor, reducing the hernia. 4th. The descent of a loop of the small intestine from the anterior or vesico-uterine *cul-de-sac*, pushing down the anterior roof of the vagina, protruding between the uterus and the bladder—*enterocele vaginalis anterior*. For the third form, only temporary expedients are suggested, such as Gariel's air pessary, while the fourth form, *enterocele vaginalis anterior*, occurs so seldom, that no well authenticated case has heretofore been met with, and Dr. Emmet, in his great work on Principles and Practice of Gynæcology just published, does not even mention it, doubtless never having met with a case. Dr. Sims, also, on his visit to St. Louis, had never met with it, and yet, nine years ago, we saw, operated upon and cured, a type case of this accident. At the time it was without a literature, and now, nine years afterwards, the records of gynæcology gives nothing analogous. To one who saw this case, and noted how readily it might happen, nothing appears stranger than this void.

In this case a loop of intestine, the ilium being in the anterior or vesico-uterine *cul-de-sac*, either from congenital malformation or rupture of the connective tissue between the uterus and bladder, had descended in a sausage-shaped body, until it protruded two or three inches through the vulva, covered only by the mucous membrane of the vagina, and the peritoneal lining membrane of the abdominal cavity presenting the appearance as seen in Fig. 1.

In June, 1870, I was consulted by the late Dr. Paul F. Eve, of Nashville, at that time Professor of Surgery in the Mo. Med. College, and a resident of St. Louis, concerning a case he had examined the day previous. It was of several years' duration, and had been pronounced a cystocele, but he thought it was an enterocele, that is, he thought the intestine was involved in the tumor.

The doctor had never met with a like condition, and supposed it not possible to cure it by an operation; had indeed so informed the parties, but hoping that something might be done to alleviate the distressing condition of the patient, and ward off the immediate danger from rupture of the containing sack, which was indeed

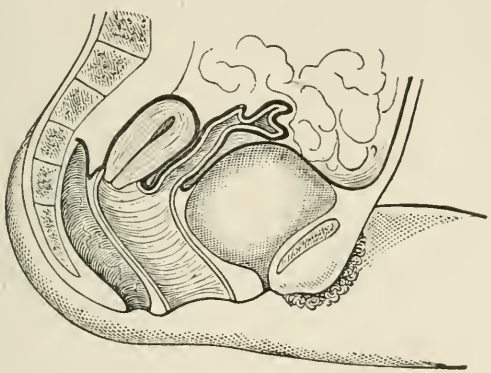
imminent, he called at my office to consult me, thinking I might be able to suggest some kind of a pessary. He asked me if I had any authority that would throw light upon the case. I told him I had none; that it was a *hernia vaginalis anterior*, which was an accident that had never been described, and consequently, no operation for its cure had ever been performed or suggested; that it was indeed without precedent, so far as its relation by anyone who had witnessed it; that Scanzoni states that authors said it sometimes happened, but that he had never seen a case. I suggested that it might possibly be relieved or cured by Sims operation for procidentia uteri, and turned to the plates pages 287, 312 in Sims' Uterine Surgery.



[Fig. 1.—Appearance before the operation.]

He was greatly pleased at seeing that if this operation was successful, it would at least prevent the hernia coming down into the vagina, and thereby ward off the immediate danger of rupture of the containing sack, and asked me to visit the patient with him next day, which I did, and upon carefully examining her, found the hernia which was protruding some two inches through the vulva, and covered, as stated, only by the mucous membrane and the peritoneal membrane, the latter, of course, merely a basement membrane, covered by epithelium and these so thinned by absorption, caused by the long-continued pressure, that the two constituted an almost transparent or diaphonous covering, through which the intestine could be readily seen. Upon introducing the finger and pushing up the intestine, we had instead of a protrusion, an excavation, that is a cavity looking upwards, so that we had between the uterus and bladder, an excavation into which the finger passed readily, (See Fig. 2,) and while thus supported the intestine showed no disposition to prolapse, but upon removal of the finger, and upon the slightest exertion, as coughing, the tumor again descended.

The patient was confined to her bed, and afraid to assume the erect position lest the sack give way and her intestines run out through the opening—a fear not at all ill founded. Under such circumstances of course she was anxious for any operation that promised relief. I suggested to Dr. Eve a more radical operation than that at first suggested—that we denude the margin of the excavation and bring them together by quilled sutures. He objected, and his distinguished worth as a surgeon made his objection valid, that we did not know how near the intestines would be to the knife or needle, and that we would be almost certain to open the abdominal cavity, but was pleased with Sim's operation for procidentia, which I told him I had performed frequently, and which his experience as a surgeon taught him was safe, and now that his attention was called to it, promised alleviation if not cure. And as the patient was a most intelligent as well as suffering woman, he explained to her the operation, drawing a diagram of the proposed operation. It



[Fig. 2.—Appearance after the operation.]

was manifest that if this operation could be successfully performed, the tumor would be prevented from coming down. The consent of the patient and her husband was readily obtained and the next day appointed for the operation, when Dr. Eve, the family physician, Dr. Anderson and myself went down, and Dr. Eve, with his usual great skill, performed the operation, making a V-shaped denudation and bringing the denuded surfaces in apposition with eight or ten silver wire sutures. The next day we visited the patient and found her doing well. The operation had entirely hid the tumor, and Dr. Eve was delighted with the hope of curing his patient. He left that night for Nashville, and never again saw the patient, who was left in my care. I visited her daily, most generally with Dr. Anderson, until the ninth or tenth day, when I removed the stitches and was dis-

tressed to find that union had not taken place, a result caused, perhaps, by the percussion caused by coughing. She had from some cause or other—most probably reflex—a distressing cough. Whatever might have been the cause, upon removing the stitches I found that union had not taken place, and consequently no good had been accomplished by the operation. I wrote to Dr. Eve, chiding myself for, perhaps, removing the wires too soon. I thought, however, that the wires had brought the denuded surfaces of each side together, so that the raw surface of the opposite sides were not in apposition. As I did not know anything better to do, and being afraid to perform the operation suggested, assisted by the family physician and Dr. Anderson, I repeated the operation first performed, and again on removing the stitches ten or twelve days after was mortified to find that I had not been any more successful. I candidly told the patient that I was experimenting with her; that I had no light upon her case. I operated again, this time making a trowel-shaped denudation, and upon removing the stitches I found I had again failed as far as a permanent cure was concerned, though there was a decided improvement upon former attempts. A few days after the third operation, however, I saw the promised good give way, and the patient in much the same condition as when first seen.

I now told the patient that I was satisfied that this operation was not calculated to relieve her—that something more radical was required—and that it would be necessary to perform an operation which I first suggested to Dr. Eve, but had been rejected by him on account of its danger. She was satisfied that the urgency of her condition justified some risk. Stating to her and the husband, the nature of the proposed operation, with its possible risks, but apprising them that while it might, I thought it would not kill her, I left them to determine whether they would take the risk. On visiting her a few days after she told me that if she had to be killed, she would as soon I would kill her as anybody else. Her bravery and confidence determined me to perform the operation first suggested, assuring the patient that I believed I had exaggerated the risk, and that I was really confident of curing her; that at all events the great probability of cure, and the absolute certainty of things growing from bad to worse without a cure, justified the risk.

A day was fixed for the operation. At the hour appointed I called with Dr. Anderson at the house of their family physician, who was confined to his room with rheumatism, and could not go with us. Being compelled to have another assistant, I drove by the City Hospital and took Dr. E. A. Clark, who, with Dr. Anderson, kindly assisted me in this fourth and final operation, by which a permanent cure was effected.

The intestine being pushed up, we had instead of a tumor an excavation. The operation consisted in denuding the margin,

commencing a-quarter of an inch from the excavation, denuding the mucous membrane of the vagina, and continuing the denudation nearly as far into the cavity and brought the raw surfaces together with quill sutures Three deep sutures of silk, and four or five superficial silver wires were used. For the quills, I used pieces of hard rubber knitting needle, two inches long. One quill was placed just in front of the uterus, and the other in front of the excavation, and when drawn together the parts were brought in perfect apposition, and the bladder and uterus close together.

When making the denudation at the margin of the excavatoin, I cut through the mucous membrane, which, from long-continued pressure, was thinned by absorption, until it was not thicker than tissue paper. The opening first made was about as large as a pea, and looked very much as though I had stumbled on the very danger feared by Dr. Eve; opened up the abdominal cavity, but as no air passed in or out during respiration, I saw that such was not the case, and with a small uterine sound as a probe I found there was a membrane beyond the basement peritoneal membrane. Fortunately, the two membranes, though long in contact, had not united.

The deep sutures (quill) were removed in forty-four hours after the operation, and I was surprised and somewhat alarmed to find the excessive suppuration that had been produced along their entire tract in so short a time. This was before the days of carbolic acid in surgery, in St. Louis. But without it I have never seen such extensive suppuration in so short a time. Some ten days after the operation the wire sutures were removed and the parts found firmly united, and the patient was soon after dismissed, cured.

I called to see the patient some two months after her cure, and found her engaged in cooking. The cook had left, and she had lifted heavy weights without inconvenience or detriment. She has continued well, and has had two children since the operation. When Dr. Sims visited St. Louis, seven years after the operation, he saw and examined the patient.

March 22d, 1879.

Erythema (?)

Dr. G. Hurt:—I have invited a patient of mine to be present this evening. He presents some symptoms that are a little obscure to me, and it occurred to me that his symptoms would interest the society. At the same time I might profit by suggestions that the members present might make.

[The boy presented himself, and submitted his hands for inspection.]

This young man is 17 years of age, of German descent, and has lived in the country up to about a year ago, when he came to the city and engaged as a clerk in a grocery store, which occupation he has continued to follow since that time; has always enjoyed good health, with the exception of an attack of measles in early life and an attack of chills some three or four years ago. About a month ago he discovered that the skin of his right hand was discolored, or highly colored, rather of a purplish hue; slightly congested, and there was an obscure sense of soreness and stiffness on closing the hand tightly. This was all the trouble he noticed at that time. Three or four days later, he observed that the skin of the left hand presented the same appearance, though in a less degree. He has neglected to procure medical advice until two days since, when he presented himself to me, and I found his hands in the condition in which they now are. There seems to be some obstruction to the capillary circulation. The pulse at the wrist is quite observable on both sides, showing that the blood normally reaches the hand. This discoloration, this venous capillary congestion extends only a short distance above the wrist. I have examined carefully the course of the veins along his arms with a view of ascertaining if there was venous obstruction, but up to this time I have discovered none. He complains of no pains in his chest, no difficulty of breathing; no trouble about his stomach; his appetite is good, and bowels regular. He discharges his urine normally, and says he is otherwise healthy, except that he experiences some obscure sense of pain or soreness in his head, especially when he pulls his hat down tightly on his head. Whether that soreness is internal or external to the cranium, I am not prepared to say. Upon auscultation I noticed that the heart beats somewhat excitedly, the pulse is more frequent than normal, though I could discover no sound indicating organic disease of the heart. It may simply have been awakened by the fact that there is an obstruction in the course of the circulation of the blood. Whether that obstruction exists in the capillaries of the hand only, or there is a thrombus located somewhere in the venous trunk, or whether the capillary congestion is simply a symptom, not of a mechanical obstruction to the blood, but of a neurosis, are the

questions that interest me. On the first visit I advised him to take a saline purgative with an alkaline diuretic. I thought the excitement to-day was not quite so pronounced as at first, and I gave him quinine and salicylate of soda, supposing that if there is a rheumatic trouble this combination would do no harm.

Dr. Prewitt said this was a case of erythema, or simple hyperæmia. He recollected seeing a case of Dr. Newman's a year or two ago of precisely the same character—a young man in a grocery. It was local hyperæmia, the result of handling various articles in a grocer's establishment; putting his hand in brine, handling sugar and all sorts of things. It was a simple local erythema.

A member inquired how it was that the left hand was the worse of the two.

Dr. Prewitt said that probably when the patient found one hand involved, he used the other more. It certainly was not a constitutional condition. The hands always have a lower temperature than the rest of the body; they are further from the center of circulation.

Dr. Hurt said he noticed that the hands were as cold as a cadaver, though the patient had been sitting ten or fifteen minutes before a hot stove.

Dr. Coles:—Mr. President, I am sorry that Dr. Prewitt terminated his remarks so briefly in this case. He diagnosed erythema, and his idea is that it is of an entirely local character. That may be so, but it seems to me worth while to look into the pathology of the disease. To say simply that it is erythema, does not give a proper solution of the difficulty. In erythema, we have more blood in the part, and an elevation of the temperature. In this case, the hand is of a lower temperature than the rest of the body. It is very clear that there is a great stagnation in the circulation of the blood. You make a pressure on the surface and it turns white. The blood slowly fills the capillaries again. That is not generally the case in erythema. There is not that stagnation in erythema that you find here. The capillaries seem in this case to be partially paralyzed, and I think the temperature of the hands is certainly below the normal. I did not test it by the thermometer. The fact that the blood circulates slowly, accounts for the temperature being below the normal. It is interesting to note the effect of handling these substances, such as sugar and beer. It is an observed fact that men who who work daily as brewers, have remarkably red hands. I think that the irritation caused by substances locally applied, creates a different condition from that which we see here. It seems to me that the cause lies deeper than a simple irritation, that there is some neurosis.

Dr. Newman:—It is true the immediate cause may have been that which Dr. Prewitt suggests, but that is not, as Dr. Coles says, a satisfactory explanation of the condition. There is certainly more blood sent to these parts than can readily return by the veins; there must be some paralysis of the capillaries of the smaller veins. The condition of the pulse indicates some constitutional disturbance. The pulsation seems to be sufficiently strong in both arms, so that the blood is not interrupted in transit, until it enters the capillaries, and this must be the result of a species of paralysis. Dr. Prewitt has seen two similar cases. I have seen one. The patient has changed his business, and I think his hands have been restored; and he has become a stout vigorous young man.

Dr. W. Johnston believed that this was only a case of irritation of the skin. If the young man changed his occupation, he would do well.

President Stevens being asked to state his view, said he had never seen a case of the kind, but was disposed to favor the veiw given by Dr. Johnston, that it was a case of mere irritation, continued from time to time.

Dr. Coles thought that there was here a condition of nervous paralysis in the fibres of the capillaries of the hand. If so, the proper treatment would not be in the way of an emollient application; he would address his remedies to the nerves which supply the blood vessels of that part.

Dr. Newman believed the patient would be cured by conjoining the use of ergot and galvanism.

Dr. Bernays expressed the view that the case had some relation to the state often seen in the lower extremities, known as varicose dilatation of the veins. If that was the case, the proper treatment would be to give him no medicine at all, but to direct him to wear rubber gloves, which would compress the veins, and hold them compressed for a long time. (The patient exposed his feet and legs to view, and the doctor continued.) The young man has not varicose veins in his lower extremities, and probably my idea does not cover this case, but the possibility of such a disease is certainly to be maintained.

Dr. Johnston said that in this instance, constant action and reaction on the skin had produced local irritation. The boy was in fine health. They could see no constitutional derangement, nothing to cause arterial excitement. He hoped that Dr. Hurt would not accept Dr. Newman's view and derange the boy's stomach by filling it with ergot or other medicines. Let him wear kid gloves and keep out of the grocery store, and he would be well in two months.

Dr. Steele suggested that the acceleration of the pulse could be accounted for by the new position in which the young man found himself. He suggested the use of electricity.

Dr. Hurt said that he found the same acceleration of pulse when he examined the patient in his office.

Dr. Saunders said that the erythema was always accompanied by a burning sensation, and by constitutional symptoms. It may be called forth by irritation, but it is still a disease allied to erysipelas.

Dr. Hughes, having come in late, said he had not heard the history, but he thought it was a case of vaso-motor disturbance. He thought that if the gentleman having the case in charge would give the patient plenty of ergot, and immerse his hands in sulphuric ether, withdrawing them frequently, and use astringent lotions, the patient would improve under that treatment more quickly than under any other. He had treated a case of this kind a few months ago, and until he commenced using ergot and in another case muriate of ammonia, sulphuric ether and sugar of lead lotions, he did not succeed so well. He believed that treatment would generally effect a cure.

Dr. Holland inquired how it was, if this was purely a local irritation, that there were thousands men in the same occupation as this patient, who were not afflicted with these symptoms.

Dr. A. Green was of the same opinion as Dr. Prewitt, that the trouble was caused by irritation. Whether the primary cause was vaso-motor disturbance, or, as he thought, by irritation, the best course would be to use astringents, ergot and an interrupted current.

Pathological Specimen.

Dr. Nelson presented a specimen of spina bifida obtained from a child still-born at eight months. The tumor was at the lower part of the sacrum, and the nerves were continued upon the inner surface of the sac. The integument had given away and the lower third of the tumor consisted only of the meninges of the cord.

Unique Case of Lead Paralysis.

Dr. C. H. Hughes read the following from his note book:—"Edwin Swishered, aged 33, painter, on June 22d, felt pain in the epigastrium; constant pain in bowels, about the umbilical region and above Poupart's ligament on each side, and in the scrotum; pains in thighs; gums festooned; restless and sleepless at night; after getting to sleep wakes with a start; has had much diarrhœa; pains more severe when costive; says an eclectic physician injected two gallons of water into his bowels to wash away the lead; there is no wrist drop, but the patient gets

up out of a chair with difficulty. His foot comes down flat when he walks, being implanted all at once, and raised in a similar manner, without natural rocking motion. When he walks, he projects his leg forward with a semi-rotary motion, extending to the hips; when his legs are crossed at the knees he can flex his feet well, but not fully extend them, and he requires the assistance of his hands to cross his knees. He is very weak in the muscles terminating in the tendo Achillis, for he cannot lift his heel, but the palsy seems to implicate, more or less, the muscles of the limbs.

This man has worked daily upon a ladder, and this is another point to which I wish to call the attention of the gentlemen, in connection with which Todd many years ago offered, and which the profession generally has accepted in regard to the localization of the palsy. It has always been observed that the palsy in painters selects by preference the right side, and by still further preference to the muscles concerned in the rotation flexion, and extension of the hand, and all the movements the painter performs in the use of the brush, or that the printer exerts in the distributing of type.

Dr. Todd, in his lectures on paralysis, at King's College Hospital, over twenty years ago, referring to the usual location of the palsy of plumbism at the wrist, asks the question why does it alight on the muscular nervous tissues chiefly; why upon the muscles of the extremities rather than those of the trunk, and why upon the extensor muscles in preference to the flexors? The answer which appeared to him the most satisfactory and which offered the best explanation of the phenomenon, is that these tissues in which the nutrient changes are most active, receive the largest proportional supply of blood, and that blood being loaded by a poisonous material, would impregnate them with it to a greater degree than other tissuses in which the circulation is less active. For this reason he thought such highly nourished structures as muscle and nerve become poisoned early; the muscles of the upper extremities being used more, and on that account experiencing more active nutrient changes than those of the trunk and lower extremities; the former are poisoned first. In painters the extensor muscles of the arms as well as the muscles constituting the ball of the thumb become principally paralyzed, because they are most exercised, and consequently more fully supplied with poisoned blood to repair the waste that is going on in them.

This, Mr. Chairman, is the explanation of the selection of the particular locations for this lead palsy in the muscular structure. I have never questioned it very much, but when this case first came under observation I thought I had found an exception to this rule. I believe that there is no case on record where a type setter has had lead palsy anywhere else than in the wrist. Upon examining this man very particularly, to ascertain

if possible, if there was anything in his habits that might by increased exercise of the palsied muscles lead to an increased demand in those parts for blood, which in this case would be poisoned blood, I found that he had lately performed much more work than usual upon a ladder, standing upon the rounds of a ladder, and you know that where a painter stands upon the rounds of a ladder, he stands on the hollow of his foot, and there is a great deal of muscular effort required for the purpose of balancing in that position, and notwithstanding the anomalous location of the paralysis in this case, Dr. Todd's explanation would still hold good. This patient has had a marked idiosyncracy, now somewhat overcome, he having been thrown into convulsions repeatedly after taking three to five drop doses of saaturated solution of iodide of potassium.

President Stevens said, in regard to the matter of painter's palsy, he had his doubts whether the great majority of them were not attributed to other causes. He had been disposed to think that most of the cases reported as the effect of lead poisoning were the effect of the constant motion of the wrist, resulting in exhaustion of the nerve power, the action of the nervous system upon the muscular system. He had seen several instances of that kind; he would not say there was no such thing as painter's palsy.

Dr. Hughes said there might be other causes than those which he had cited, leading to paralysis, as, for instance, excessive exercise. In some instances there was power of motion, but a lack of co-ordinating power.

March 29th, 1879.

Aneurismal Tumor.

Dr. T. F. Prewitt presented a pathological specimen, consisting of a heart, lungs and larger blood vessels. He said: This specimen is taken from the body of a man who presented himself at the clinic of St. John's Hospital on September 18th, 1878.

He had the appearance of being in consumption. When I examined his chest, I found that there was a decided impulse at its upper portion; this part heaved with every pulsation. A tumor which could be distinctly felt, extended into the suprasternal fossa. His voice was affected. I concluded that this tumor was an aneurism of the arch of the aorta, which pressed upon the left recurrent laryngeal nerve. There was also an old syphilitic history. In accordance with the suggestion of Dr. Geo. N. Balfour, of Edinburgh, on treatment of aneurism, I advised rest, and prescribed iodide of potash, ten to twenty-grain doses three times a day.

I requested Dr. Stevens to examine the throat. He found that the right vocal cord was paralyzed. I examined the man still more carefully, and found that the tumor in the supra-sternal fossa was situated more to the right. It seemed to push the larynx to the left, and the fact that the right vocal cord was involved, led me to the conclusion that it was an aneurism of the arteria innominata, instead of the arch of the aorta. This would imply an enlargement of the innominata sufficient to produce pressure upon the right recurrent nerve, as it passed beneath the right subclavian artery.

Under the treatment of iodide of potash, the impulses decreased materially, there was but a very indistinct bruit perceptible at any time. He had a most admirable appetite, but in spite of that, he continued to decline in his general condition, why, we could not tell.

On the 26th of December, I learned that he was dead. I had not then seen him for a month. I refused to give the burial certificate without a post mortem examination, and then I was able to secure these specimens. The patient had had considerable cough, and it was difficult for him to swallow, especially solids.

He had pain in the right side of the neck, extending up to the back of the head and down the border of the trapezius muscle, from which he was only relieved by hypodermic injection of morphine. He could not sleep while lying down; he slept in great part, propped up, and sometimes he would get up and walk the floor, being unable to sleep on account of pain. The right recurrent nerve can be seen as it passes up beneath the subclavian artery, stretched more or less by the tumor. The sac of the aneurism is almost filled with a fibrinous clot. The aneurism unquestionably was in process of cure, and yet the man died, for some reason which I could not determine; and no additional information was determined from the autopsy. I was not able to examine every part of the body. The patient had had severe bronchitis, but I think there were no tubercles in the lungs. The arch of the aorta is not dilated, while the right carotid and subclavian arteries seem little, if at all implicated. Whether we are to attribute the improvement in the aneurism to the iodide of potash, I do not know; but the man certainly improved, and the impulse certainly decreased under its use.

Dr. Lutz:—What do you suppose caused death in the case?

Dr. Prewitt:—I stated in the certificate that he had aneurism of the arteria innominata. I learned very little about the symtoms immediately preceding his death. I made the examination and got away as quick as possible with the specimens. It was only with a great deal of difficulty that I gained permission to examine the chest, in fact, only upon an absolute refusal to give a certificate. I said they would have to send for the Coroner.

Dr. Wm. Porter:—There are some interesting phases of this somewhat rare case. The doctor said the right vocal cord was

paralyzed, i. e., the muscles moving it were paralyzed. Were the abductors or adductors paralyzed?

DR. PREWITT:—The abductors. The right vocal cord was stretched across the larynx and immovable.

DR. PORTER:—That is the usual form where there is pressure on one of the recurrent nerves. In this case the nerve was pressed by the aneurism of the innominata. We naturally find pressure on the left side more frequently than on the right side, because aneurism of the arch of the aorta, is more common than that of the innominata. So rare is this condition, that until 1868 there was only one case reported, and that was in the *Medical Times and Gazette* of London, by Dr. Mackenzie. Since then, numerous cases have been recorded, and they always attract attention. A case, the laryngeal symptoms of which were similar to this, was that of a child in the ward of the London Hospital. When the child came under my care, there was paralysis of the right vocal cord in the median line. There was no aneurism, but there was an enlargement of the glands of the neck. The diagnosis was involvement of the right vocal cord, from pressure on the recurrent nerve. The child died, and on autopsy, it was found that a small gland had become enlarged and had almost entirely surrounded the nerve, the functions of which were entirely destroyed. The treatment in these cases depends, of course, upon the cause. In such a one as this, the treatment must be directed to the removal of the gland by medication or by operation. In aneurism, the treatment is plainly indicated, and we know the general sad result. We can often give a great deal of relief if we determine the condition of the larynx. I know of one case where a man was allowed to suffocate because the vocal cords met in the median line and tracheotomy was not performed. This may have been so in the case just mentioned by Dr. Prewitt, but I can hardly perceive it, even though other definite cause of death be unknown.

DR. THOMAS KENNARD asked if Dr. Prewitt thought that the iodide of potash had anything to do with the observed improvement of the patient's condition.

DR. PREWITT:—I think it is a Scotch surgeon who strongly urges the use of iodide of potash in these cases, and he claims good results. I gave it for that reason, and also because there was a history of old syphilitic disease. The aneurism was practically cured. The man was better, so far as the aneurism was concerned, because the impulse had almost entirely ceased, which was plainly perceptible to the eye when I first saw him. It ceased to be visible to the eye, and could scarcely be felt by the fingers. It was certainly in process of cure; but whether this is to be attributed to the iodide of potash, or not, I do not know. This salt is said to increase the coagulability of the blood.

When I went to the house I was so intent on a post mortem that I did not learn much about the symptoms immediately preceding his death. While under my care he was becoming more and more debilitated in spite of the fact that he had a ravenous appetite, and ate heartily. It is true he did not sleep well. He had neuralgia in the neck; but from what cause I do not know. I suspect that the man died of inanition, for though he ate heartily it did not seem to benefit him much. From the specimen it is manifest that the subclavian artery is not at all involved nor is the arch of the aorta, nor does the caliber of the vessel seem in the least altered. In aneurism of the arch of the aorta there is pressure upon the left recurrent laryngeal nerve, which winds around beneath the arch. It was only when my attention was drawn to the fact that the right vocal cord was involved that I examined more carefully the tumor in the supra-sternal fossa and found it was situated more on the right side and pushing the trachea to the left.

Dr. Kennard did not see what syphilis had to do with this case, any more than he could see how iodide of potash could benefit the patient one way or the other.

Dr. Hughes did not think the patient died from inanition, since he was capable of taking liquid food, nutritious in kind and sufficient in quantity. He was more inclined to think, looking at the patient from that distance, that he died by dyspnœa—literally from want of breath, caused by pressure on the pneumogastric nerve.

Dr. Prewitt said the man had a wheezing respiration, like one suffering from the asthma, but there was no such interference with the respiration as to seriously affect him in that way. There could be pressure on but one nerve—on the pneumogastric on the right side. He doubted whether that would be sufficient to interfere materially with digestion. Of course, if there was not a sufficient amount of gastric juice this condition might interfere with indigestion.

Dr. Newman:—The fact that we are totally in the dark as to the cause of the patient's death detracts from the interest of the specimen. If, however, as suggested by Dr. Porter, death was caused by pressure on the nerve of some vital organ, it seems that progress towards cure was probably the cause of death. That looks like a contradiction, but the tumor became solid in consequence of the coagulation of the contained blood, and this increased the pressure on these nerves, and in that way, it has occurred to me, the very progress towards cure was fatal to the patient.

Painter's Palsy.

Dr. Hughes referred to the case reported at last meeting. He was not able to say what effect electricity had on the patient,

but after the use of the constant current once to the spine and lower limbs, the man began to improve. He would not say it was the result of a single application. The man went to work afterwards.

Choirister's Cramp.

Dr. Hughes :—I wish to report a singular case. I have seen on record no case of the kind; but several weeks ago a gentleman connected with the choir of one of the city churches consulted me with respect to a condition which I have called choisister's cramp, or singer's spasm. He told me that in attempting to carry his part toward the close of the song service, he found himself unable to prolong his voice at will on one or two occasions, and unable to modulate it a pleasure. This excited alarm, because he had no hoarseness, and no cold in the throat. He had no way of explaining it and hence he came to me to ascertain what it signified. I threw a reflected light into his throat and saw no irritation or inflammation and gave him nothing for local relief. In conversation with me, Dr. Rumbold was of the opinion that if I had examined more carefully I would have found some local trouble. I recommended the gentlemen to call on Dr. Rumbold, but he has not done so. It seems to me that the fact of there being no hoarseness, irritation, pain or cough, in this case, the fact that it came on suddenly, as writer's and painter's cramp do, entitles us to put it in this category.

The gentleman's nerve tone was much lowered in consequence of losing a good deal of sleep of late. I enjoined cessation from singing and prescribed lacto-phosphate of calcium, bromide of potassium and Fowler's solution, and the trouble seems now to have disappeared.

President Stevens said he would like to hear from members who had treated cases of what was supposed to be lead palsy. He advanced the view the other night that the large proportion of the cases of wrist palsy, attributed to lead, were not induced by lead, but by over-action of the muscles involved in the movement of handling the brush. He cited a case in which it could not have been caused by lead, as the man was simply using an augur in boring an artesian well. He thought that a large number of cases of so-called lead palsy were the result of other causes than the absorption of lead.

Dr. T. Kennard asked if it was not a fact that lead palsy occurred in men working in lead factories. He had had a number of cases of men from the white lead works, men who never handled a brush. They had lead colic. He understood that this was the great trouble in getting silver at Leadville. Most cases of lead palsy were among those who worked in the factory, not painters.

Dr. J. M. Scott :—Last Saturday I asked the question why it

was that painters were not affected with wrist-drop. Dr. Hughes said such cases had happened. Since that time I have been consulted by a lady who is a hard student at the piano, for wrist drop. I can account for it on no other hypothesis than that advanced by Dr. Hughes, viz., muscular exhaustion. There is no lead palsy here, but her hand was completely paralyzed.

Dr. Bauduy wished to corroborate the theory that lead poisoning is produced by the presence of lead in the system. Surgical authorities pretty unanimously concur that lead colic results from the same causes as the development of lead palsy. I find lead line on the gum a characteristic of lead poisoning. Independent of that there was lead poison in the muscles, and an attendant of the trouble was poisoning of the nerve centers. If the patient is not relieved it is known that palsy develops itself as a consequence of lead paralysis. Cases of softening of the brain and other forms of nervous disease have been found as the result of lead poisoning. To my mind the strongest evidence that poison is produced by lead is the fact that iodide of potassium is most valuable in curing all forms of palsy from lead. It tends to eliminate the lead and other metallic poisons in the system. It cures or palliates the condition of the patient. It has been asked why lead paralysis usually attacks the abductor muscles. It is because painters use those muscles more than any other, and the poisoned blood, charged with lead, goes to those muscles with greater rapidity and in larger proportions.

Dr. J. M. Scott said he did not suppose anyone doubted the fact that lead produced paralysis. The question was whether this wrist drop was in all cases the result of lead poisoning. It was not alone painters who had it but pianists and telegraphers had it. No one denied that lead had this paralyzing effect, because they saw it almost every day.

President Stevens said he did not wish to be understood as denying that lead is capable of producing palsy, but there were many cases of wrist-drop in persons who did not use lead. How were these cases to be accounted for?

Dr. Hughes said there were three facts connected with this subject of lead poisoning, which were just as well established by observation and experience as any other fact observed in medicine; first, there was the festooning of the gums, as described years ago by Burton; next, the selection of the location, as described by Dr. Todd, and, third, the treatment, as described by Nelson. There was a fourth fact, as stated by Dr. Bauduy, the liability of the central nervous system to manifest the effects of the poison, if the disease is not arrested, He did not understand that any one maintained it was impossible to have paralysis from over-exertion in the part; that it existed with writers,

where there was no lead poison, but it was with them usually manifested in the form of cramp.

Dr. McPheeters said that another fact which militated against the theory advanced, was that the peculiar form of paralysis known as wrist-drop was as likely to occur in the left as in the right hand, in which the brush was not used. It sometimes affected the limb and the whole side. It would not do to conclude that lead had nothing to do with this particular form of poison, because we cannot trace lead. We know that this is a very subtle poison, and sometimes taken into the system in small quantities. It occurred to one gentlemen in this city through sleeping in a newly painted room. In another instance the trouble was caused by a small cavity of a tooth being filled with lead. If he had a case of wrist-drop in a pianist he would be disposed to look for some obscure lead poison, rather than attrib ute it to the use of the muscles in the vocation of the party.

Dr. Bauduy said he wished to make a statement so as not to be misunderstood. He did not say that wrist-drop was necessarily produced by lead poison. He could conceive cases of wrist-drop that did not originate in lead poison, but thought such instances were exceptions.

April 12, 1879.

Cancer of the Stomach.

Dr. W. M. McPheeters exhibited a pathological specimen of cancer of the stomach, which presented some interest on account of the size of the cancerous tumor.

He said: The subject was a gentleman sixty-two years old who had led an active life. For a number of years he had suffered from what was supposed to be dyspepsia, having at intervals severe gastralgia, especially after eating.

He first came under my care last summer, suffering from violent gastric pain. Having been unsuccessful in relieving him by the ordinary remedies in such cases, I was led to the conclusion that he had scirrhus of the stomach, and so stated to his friends. In the fall he went to Cincinnatti, and was treated with electricity in various forms. He returned to this city in January believing himself cured. About four weeks ago I was sent for again, and found him suffering extreme pain in the stomach, greatly aggravated by taking any food. It was situated on the left side of the spine immediately behind the stomach, and traversed the semi-circumference of the stomach. For several weeks prior to his death, he could not lie down without increasing the pain, and sat up until within two days of death, when he became so weak that he could do so no longer. He generally assumed

a posture leaning forward, as this gave him some relief. Evidently, the pain in the back near the spine was caused by the pressure of this large and hard tumor.

He never vomited; it is very evident that it would be impossible for a man to vomit with a stomach like this. There was no muscular structure left to contract, and the cardiac orifice was so diminished, that what passed into the stomach could not return. For three weeks before death, he took into his stomach literally nothing, and was nourished solely by nutrient enemata.

A very small portion of the stomach is left unaffected. I do not suppose it would contain more than eight ounces. The pancreas seems to be involved in the cancerous mass. By pressure, I inserted my little finger into the cardiac orifice of the stomach, but it was almost entirely closed, and the mucous membrane of the stomach is greatly thickened.

Dr. Hughes said that he understood that the deceased was a nephew of a distinguished citizen of Missouri, who died of a cancerous disease of the rectum, which was an additional point of interest in the case.

Burns of the Fovea Centralis by Concentrated Solar Heat. By A. D. Williams, M. D.

Everybody knows that light, when it enters the normal eye, is brought to an exact focus upon some part of the retina, the point of impingment being determined by the direction in which the light enters the eye. If the light comes from a luminous body upon which the eye is fixed or *focused*, it will be perfectly *focused* upon the center of the retina, which point is commonly called *fovea centralis* or *macula lutea*. Now, if this focused light should contain *heat rays*, which solar light always contains, we can readily understand that the very delicate structure of this part of the retina might be seriously affected by the physical effects of concentrated heat. If we take a strong convex lens and concentratate solar light during middle part of the day upon the hand or any part of the body, or indeed upon any flesh, and hold it there for a few minutes, perfectly focused, it will not only burn but make a blister if continued for a little while. Such a lens is called a *sun glass* by the people because it not only burns the flesh, but will set dry wood on fire.

From these facts we would naturally infer that, when the natural lens in the eye focuses, in the most perfect way, solar light upon any part of the retina, particularly the fovea centralis, in which point the focused light usually strikes the retina, it would of necessity produce the same burn there as upon the general skin of the body. Does such a burn of the macula lutea or fovea centralis ever occur in fact? If such burns ever take place, they would most likely be observed immediately after eclipses have passed.

Some years ago, while I lived in Cincinnati, a total eclipse

took place, which everybody enjoyed and admired very much. The next few months after the eclipse I was consulted by 304 persons, who supposed they had injured their eyes by looking at the eclipsed sun. Upon examination with the ophthalmoscope, I found that a small, round, dark-colored spot was visible in the fovea centralis, while the adjacent retina was apparently perfectly healthy. The spots were not larger than pinheads and were characteristically *round*. The patients complained only of a blind central spot; in some of them the center of the field of vision was totally blind, while in others there seemed to be a general dimness of various degrees over the central portion of the visual field. In all of them the defect of vision was confined to the center of the field. Objects outside of the blind or dim-center appeared natural, showing that the retina outside of the central injury was not affected. In all of the cases the central injury or burn was not visible with the ophthalmoscope, but the symptoms given by all were sufficient to show that it was there, but not extensive or deep enough to be seen. No one had both eyes affected, because, I suppose, they looked at the eclipse with only one eye.

Some time after I saw these cases, a young man consulted me, giving the following singular and rare history:

"I was recently," he said, "lying on my back on a log, in a dense forest and had my hat over my face. In the top of the hat was a small hole; looking through this hole I discovered that I could see the body of the sun through a small opening in the dense foilage above. In this singular way I enjoyed looking at the sun, I suppose, for ten or fifteen minutes. When I got up I found I could not see with that eye. The whole central part of the field of vision was blind. I first thought it was something covering the eye and tried to rub it off, but soon found it was fixed." Such was the story told by the young man and he was very anxious to know what was the matter, and what could be done for it. On examination, the small, round, dark spot in the macula lutea was discovered in every way characteristic of the injuries I have already described.

A few days after the eclipse of the past summer, a servant girl in this city, came to me with the statement that, after looking at the eclipse without any smoked glass, till it passed off, she discovered that a mist was over all objects in the central part of the field of vision of one eye. With the ophthalmoscope I could not see the injury, but the history and the symptoms proved to me conclusively that it was there, but not visible.

These cases prove positively that the central part of the retina can be easily and very seriously burned by concentrated solar heat. This conclusion, indeed, might be arrived at from theory alone, knowing the effects of focused solar light. Observations, however, prove that such burns are not uncommon.

These burns would naturally be of different degrees. This

would account for the different degrees of blindness. There is no pain, because the retina is not a nerve of common sensation.

Such burns are incurable as far as vision is concerned. Nature may partly restore the lighter forms of injury. Treatment avails nothing in such cases. People should not, therefore, look at the sun without perfect protection.

So far as I know, writers have not described this kind of injury to the fovea centralis.

I was reminded of this matter by the remarks made by Dr. Ford, on the last evening, in regard to ophthalmoscoping eyes with direct sun light, which should never be done.

Dr. Cornick spoke of burns being produced by the rays of the calcium light, as well as by the sun's rays.

Dr. Williams:—It is not the optic nerve; it is the retina that is affected in the case I refer to, and that is susceptible to the physical effects of heat. The symptoms were sometimes complete blindness, sometimes dimness of vision more or less considerable. The symptoms indicated that the retina was injured. I think the cases incurable; certainly where there is total blindness recovery cannot be expected.

Dr. Bernays:—This is a question of great interest. A strong light causes blindness. The gentleman explains this by asserting that the retina is burned. Let us consider this question. The rays of light strike the cornea, are broken in the lens and come to a focus on the retina. In order to burn the retina they must pass through the cornea, the aqueous humor, the lens, and the vitreous body which is a bad conductor of heat. I do not believe that heat will penetrate this body so as to injure the retina. I think the gentleman's explanation fails on this account.

Dr. Ford:—I think we are warranted in believing that the fluids of the eye are simply saline solutions. There is no true cell visible in the corpus vitreum. We have simply the passage of the rays of the sun through transparent media and their absorption by the tunics of the back of the eye. Light passes through all transparent media, but when cast upon a colored surface it is absorbed, and by a retardation of the velocity of its vibrations—a phenomenon akin to what is known as fluorescence—is converted into heat. Light and heat are the same; both are fluorescent. So light may be transformed into heat, and if the focusing be perfect, heat must be generated in the outer layer of the retina, where the cones and rods lie in contact with the choroid; hence it is probable these structures may be injured by heat so generated by undue illumination.

Dr. Williams:—I simply report what I have seen. I do not pretend to account for the injury, whether paralysis or a

burn. My impression is that it is an actual burn. If it was paralysis it would make no change in the tissue. I am compelled to believe from actual evidence that it is a burn. The sunlight is focused at one point, so that no other part of the retina would be injured.

Dr. Post suggested that the injury might be due to some chemical change occurring in the retina.

Dr. Bernays:—I think the corpus vitreum corresponds in density to about a three-fourths per cent solution of chloride of sodium or common salt. In regard to structure, it belongs to the class of myxomatous tissues. In the ox's eye, I have seen myxomatous cells with large nuclei surrounding the central artery of the retina. The corpus vitreum is developed from the same source as the subcutaneous connective tissue. Still I do not think that the cellular elements form much of its bulk, nor would they have much influence on its light-absorbing or heat-conducting power; and the question which I raised in regard to this heat-conducting power of the corpus was not answered.

I will not absolutely dispute the possibility of burning; but there might be other changes produced by the direct effect of light, which would cause the spot on the fovea centralis, seen by Dr. Williams with the ophthalmoscope. For instance, there might be rupture of capillaries; and the extravasation of two or three hundred red blood corpuscles might make a small black spot; or there might be a change in the pigment cells of the choroid.

Recent examinations show that these pigment cells have a certain colored fluid, which is generated behind the retina, and which is physiologically like nitrate of silver that photographers put on glass. The pigment cells on the posterior surface of the retina might be so affected as to cease producing this fluid, and thus we would have an explanation of the blindness.

Dr. Prewitt asked if Dr. Williams meant an actual burning of the tissue.

Dr. Williams said he meant an actual burn by solar heat, just as if he held a convex lens over his hand. This had been sufficient to destroy the proper structure of the fovea centralis. There was no blister, but an actual burn. That was what his observation led him to believe.

Dr. Ford:—The vitreous humor is classed as mucous tissue by Virchow, together with the soft substance of the umbilical cord. With regard to the retention of heat in the eye, it is an interesting subject, and brings us into the domain of physics. All light coming from the sun has the power of passing through transparent media, but coming from other sources, it does not possess that power. The rays of the sun pass through the

transparent media of the eye, as they pass through water, and they heat very noticeably any substance which is covered by a transparent medium. This is the theory of glass houses. The sun's rays pass through the glass, impinge upon the soil of the hot-house, and are absorbed; the earth so heated cannot radiate back again, for the heat-rays it emits are unable to penetrate the glass. I have myself made experiments in the South with regard to the putrefaction of the black mud at the bottom of swampy pools, where the water was as yet transparent, in April. The temperature of the air in one of these experiments was 72°, the water 84°, and the temperature of the mud at the bottom of the water 86°. The sun's rays passed through the water to be absorbed by the black mud, and thus the mud became heated, so as to be hotter than the water under which it lay. So it is that the choroid coat of the eye, at the bottom of a globe of diaphanous structure may be heated by the absorption of the rays of light which fall upon it, and affect the bacillary layer of the retina, which lies in contact with it.

Dr. Hughes said he could understand how the sun's rays produced burning when brought to a focus, but when they had to pass through a body like the crystaline lens, it seemed difficult to understand the burning. How could they have it brought to a focus and yet diffused?

Dr. Williams said that the solar rays were brought to a perfect focus on the retina, at a single point. It was that part that was burned. There was no possibility of the rays spreading out and burning the surrounding tissue.

April 19th, 1879.

Thoracentesis. Excision of portion of a Rib.

Dr. F. J. Lutz:—About two months ago I was called to treat a man about forty years old, a laborer, suffering from pneumonia of the right lung. He recovered in about three weeks and I left him with a tonic prescription. About two weeks later I was called again. I found him suffering with dyspnœa and some cough. Physical examination revealed all the symptoms of pleuritic effusion. Over the fourth and fifth intercostal spaces a fluctuating tumor was observed indicating the nature of the effusion. I made a diagnosis of empyema and with an aspirator removed two quarts of pus. I kept him on the iodide of potassium and tonics, and gave him something for his cough. One week later I withdrew a quart and a-half of pus; eight days after that I again withdrew two quarts with the aspirator. Satisfied that aspiration alone would not effect a cure, I made a free

incision and removed a piece of the ninth rib about an inch and a-half long in the line of the axilla. I thus secured a free opening through which the pleural cavity could readily be washed out with antiseptics and so kept thoroughly clean. A quart of pus escaped from the cavity when the patient was turned upon his side immediately after the operation.

He had a rigor the next morning and the temperature rose to 101°. I have washed out the cavity twice daily with a solution of carbolic acid. This evening when I called, I found two drams of very thin pus. I have removed the drainage tube and keep ten or twelve horse hairs in the wound as a drain. It is just two weeks now since the operation. His appetite is good and he is regaining strength. The normal sounds of respiration are gradually returning. I believe that the practice of resection of the rib is not common with us. Among the Germans it seems to be quite a favorite mode of treatment. Some surgeons have proposed to make two openings, one higher up than the other, in order to secure a free flow. This seems to me unnecessary, for with one large opening the pleural cavity can be very thoroughly cleansed.

DR. HURT:—In operations of this kind is it customary to dissect off the periosteum or not, and I would like to know whether the space is left without bone after it heals up in cases of cure? Is it not possible that the bone might be restored? And even if it is the habit to take out the periosteum, would it not be better to allow that to remain?

DR. LUTZ:—I exposed the rib very freely, made an incision through the periosteum, then I took out the portion of bone, leaving the periosteum intact so far as possible. I do not know what the result will be, whether the rib will be restored or not. I imagine that if it heals, the function of the thorax will not be impaired. I have in mind the case of a man who attempted suicide. A portion of the thoracic wall and a part of the lung were torn away by the bullet, and a piece of wadding used in the pistol remained in the thorax. The surgeon brought the edges of the wound together and the patient recovered, although the capacity of the thorax was decidedly diminished. In these cases if one side of the thorax is diminished in capacity and the volume of the lung is diminished, the other lung takes on a vicarious function, I cannot see any absolute harm done to the patient, from the fact that one side of the thorax is diminished in its acting power.

DR. SCOTT:—I have treated such cases long before aspiration was invented. I have never found it necessary to remove a part of the rib, but found that making an incision in the intercostal spaces was sufficient. I cannot understand why Dr. Lutz found it necessary to remove a portion of the rib.

Dr. Lutz :—It is a rule of surgery, wherever you have a collection of pus, to evacuate the contents of the cavity, and to make such an opening that you can keep it clean. If you make an incision in the intercostal spaces and put a tube in it, the incision will keep shrinking, and after a while you will not have room in which to operate, and to wash out the matter as soon as it is formed.

Dr. Scott :—I cannot understand why you resected.

Dr. Lutz :—We have some cases of pleurisy in which very little pus is formed, and in which a mere aspiration cures the patient, where within five weeks, five or six quarts of pus were formed in the pleural cavity. Anything that could be done to lessen that would be justifiable. Furthermore, the formation of adhesion, between the pulmonary and costal pleuræ, facilitated by the shrinking of the affected side, is a means of effecting a cure in these cases. The operation certainly assists in effecting this.

Dr. Scott :—A free incision in the intercostal space at first would have been better. It was a waste of time to use the aspirator.

Dr. Lutz :—I think it has become a rule to use the aspirator first.

Dr. W. H. Ford spoke of Dr. Bowditch as the first who emptied the cavity of the chest by paracentesis and suction; and of Austin Flint, Sr. who used the common Higginson syringe, and pumped the matter out. He said the great bugbear in old times was the fear that air might enter, and every precaution was taken to avoid this, but there is still also the irritation and hypersecretion caused by aspiration. The sudden withdrawal of fluid necessarily causes enlargement of the vessels of the thoracic cavity, hence hyperæmia of the membranes, renewed inflammatory action, and sometimes a greatly increased secretion of pus. Evacuation by aspiration was first practiced by Dr. Bowditch and afterwards by Dr. Flint, Sr., of New York. In some cases the apparatus used was simply a trocar with a tube attached as siphon; in other cases a syringe was attached and the fluid was pumped out. The latter gentleman published a paper in Brown-Sequard's *Archives of Medicine*, in 1873, in relation to the evacuation of the fluid by suction-apparatus, but nothing was said of the excision of a piece of bone. This latter mode of procedure has, however, been quite generally approved during the last two or three years in the surgical treatment of these cases.

Bryant has well said that any incision should be so large that if air entered it can escape again readily. The practice of making two openings is liable to the objection that it necessitates the use of rubber drainage tubes, difficult to introduce and causing pain.

These are, moreover, a constant source of irritation and tend to keep up the discharge of pus, and they are apt to break, especially when iodine injections are passed through them, the iodine destroying the rubber.

In a majority of cases the aspirator will be found incompetent to treat empyema successfully, and the exsection of a portion of the rib is the best procedure, as it becomes evident that radical measures are necessary.

DR. KENNARD spoke of Dr. Bowditch's having recommended the use of the trocar in the treatment of empyema twenty-five years ago. He sometimes used a suction apparatus and sometimes a rubber tube attached to the trocar at one end and having the other end under water to prevent the admission of air. He said that he never heard of the necessity of exsecting a portion of the rib in order to evacuate pus from the pleural cavity.

DR. FORD :—Some of these cases will recover with a limited amount of attention and by aspiration alone, but in most of these cases of chronic pleurisy there is a marked disposition, to the formation of pus, a disposition which seems to me akin to that which underlies tuberculosis; in these cases a large incision and frequent washing out of the cavity are needed.

DR. BERNAYS spoke of the different forms of pleurisy: Simple pleurisy in which the exudation is pure clear serum, will usually terminate favorably under purgative and diaphoretic treatment or better yet, under expectant treatment.

In some cases, however, the fluid fails to become absorbed and then the best treatment is to remove it by the aspirator. If this affords permanent relief, it is well; but in a certain proportion of cases we find that the fluid returns after tapping, and is purulent in character instead of serous. In these cases we resort to *thorakotomy* with injections; in the method Dr. Scott has spoken of, making an incision in the intercostal space and washing out the cavity with antiseptic or astringent fluids of different kinds. In order to secure a large and free opening we may need to resect a rib. I have seen cases where the pleural cavity was filled with blood. In two cases of wounds received from sword thrusts in fighting duels, the internal mammary artery was cut and hemorrhage took place in the cavity. In one case it was necessary to resect a rib in order to secure and ligate the artery; in the other, in order to evenate the blood-clots. I think this operation is indicated in all such cases. I do not consider the operation of resecting a rib as more dangerous than a mere incision, if performed by a careful surgeon, and it has an advantage over a simple incision in the facility that it affords for after treatment in washing out the cavity. In a common case of pleurisy resection of the rib is unnecessary, as the aspirator will lead to a successful result in nine cases out of ten.

Dr. A. Green thinks that the success of the treatment is largely determined by the presence or absence of adhesions binding down the lung. Thinks all the fluid should be withdrawn from the cavity, as we cannot tell whether the lung will expand or not. If the fluid is purulent a free opening must be made, but resection does not seem to be necessary at first.

Dr. P. G. Robinson approved the use of the aspirator in the first instance to establish diagnosis. If the discharge of pus continues, if there is a disposition of the chest to contract, and if the ribs are approximate and close the opening so as to prevent the regular use of injections, he would not hesitate to remove a portion of the rib as Dr. Lutz had done. In certain circumstances that seems to be necessary.

Dr. Newman said that the danger apprehended from the entrance of air into the pleural cavity might be averted by the adoption of antiseptic precautions. There are germs floating in the air and taken into the system, but they exert no evil influence unless the condition of the system is such as to afford them proper soil for their growth. In certain pathological conditions they undergo changes and become destructive to life. He could not see the necessity for dissecting out a portion of rib in cases of empyema.

Dr. Lutz thought after all that had been said, that if he had another similar case of empyema which did not improve after repeated aspirations, he would make a free opening by resecting the rib, but of course did not wish to be understood as advocating that operation in ordinary cases of pleuritic effusion.

Dr. McPheeters said that he could readily understand that where there was an accumulation of pus, after the repeated use of the trocar, resection would be justifiable, but he could hardly think proper to resort to that as a primary operation.

Dr. Hurt thought that probably enlarged experience in the treatment of empyema, would enable surgeons to determine whether it would be better to resort to exsection of the rib immediately or to some other operation, such as simple incision in the intercostal spaces, or to aspiration. No doubt many of these cases are curable in certain stages by aspiration; and in others, a simple incision would be successful. The idea had suggested itself to him, that to prevent collapse of the chest and the closing of an incision made in the intercostal space, an ivory wedge might be introduced between the two ribs.

Dr. Hughes alluded to the fact, that air entering into the pleural cavity, assists in causing collapse of the lung. This seemed to him an argument in favor of large incisions, and would also argue for the excision of the rib.

Trommer Extract of Malt Co.

FREMONT, OHIO.

FREMONT, Ohio, April, 1878.

DEAR SIR:—

It is now five years since we first introduced and began the manufacture of Extract of Malt in the United States. It has been our aim to furnish the medical profession in America with a malt-extract equal to the best German make, and (by saving the expenses of importation), much cheaper than the foreign article can be afforded. For the manner in which our efforts have been appreciated by the medical profession, we desire to express our warmest thanks.

The difficulties attending the manufacture of Extract of Malt in large quantities, can be overcome only by that kind of skill which is acquired by experience. Its constituents must receive no injury by the process, and good flavor and keeping quality, adapting it to all climates, must characterize the product. All are familiar with the striking difference between certain celebrated brands of ale and porter—and yet the poorest as well as the best, is, or should be, produced from barley malt and hops. Success greatly depends, of course, upon the employment of none but the best material; but it is by the use of specific and long-tried procedures that results are obtained which are so difficult to rival.

We do ourselves but simple justice, in stating that our *entire attention* is, and for many years has been, *exclusively* devoted to the manufacture of Extract of Malt for medicinal purposes, and that we give our undivided personal attention to each step in the delicate process by which Extract of Malt of excellent quality can alone be made.

Under these circumstances, it is unreasonable to suppose that the various manufacturers of fluid extracts, elixirs, pills, etc., (who attracted by the high reputation of our Etract of Malt), have recently in various sections of the country, undertaken the manufacture of a similar article, should generally succeed in producing it of a quality according to the fulsome praise with which their advertisements are filled. While being perfectly willing to let the reputation of our Extract of Malt rest upon its real merits, we owe it to the medical profession, as well as to ourselves, to give warning against imposition.

It has come to our knowledge that certain articles extensively advertised as "pure" and "genuine extract of malt," are composed chiefly of the substance called GRAPE SUGAR or MALTINE, which, as is well-known, is the product of the action of sulphuric acid upon starch subjected to a high temperature. This artificial grape sugar or glucose, which is extensively manufactured from corn starch, is now being used in immense quantities, instead of ordinary cane sugar, in the sophistication of confectionery sugar house syrup, "strained honey" native wines, and canned fruits, and by some brewers in the manufacture of beer and ale. The cheapness of this artificial product of Indian corn, constitutes the chief inducement for this species of substitution for barley malt and sugar cane.

Again, an extract of malted grain is manufactured for the purpose of obtaining *diastase*, which, (simple and variously combined) is much used in medicine. The appearance of the extract is but slightly changed by being deprived of this important constituent, although, it is unnecessary to add, that its value as a medicinal agent is thereby greatly impaired. Nevertheless, this very substance, which is little more than refuse material, in the manufacture of diastase, is now being offered for pure malt extract.

It is *malt extract* prepared from barley malt combined with the proper proportion of hops, that has been for many years the standard medicinal nutritive employed by the medical faculty of Europe, and especially of Germany. Its value has been established by experience, and its use in the treatment of almost all forms of disease of nutrition is constantly extending. We shall continue to devote the most scrupulous attention to the maintenance of the reputation of our malt extract, by the careful selection of material and by unwearied personal attention to manufacturing details.

Attention is respectfully directed to the accompanying extract from Ziemssen, and also to our cirlcular and testimonials elsewhere printed.

Very respectfully,

TROMMER EXTRACT OF MALT CO.

FROM ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE, VOL. XVI, PAGE 474:

"The Malt Extract prepared from Trommer's receipt is designed to fulfill much the same purpose as cod-liver oil, carbo-hydrates (malt sugar, dextrine), taking the place of fatty matter. The simple (much or little hopped) and the chalybeate form of Malt Extract are coming more and more into favor as substitutes for the oil; they are more palatable and more easily digested, and should, therefore, be preferred in the dyspeptic forms of anæmia. During the last few years Malt Extract has almost entirely taken the place of cod liver oil in the treatment of phthisis, and other wasting diseases at the Basle Hospital, and we have as yet found no reason for returning to the use of the latter remedy. The Extract may be given from one to three times a day in doses varying from a teaspoonful to a tablespoonful in milk, broth, beer or wine.

Saccharated Chloro-Pepsine

The Best Remedy for Nausea and Vomiting in all forms,

ESPECIALLY OF PREGNANCY, INDIGESTION & DYSPEPSIA,

ALL FORMS OF GASTRIC DERANGEMENT, ATONIC DIARRHŒA, INDIGESTION—DIARRHŒA OF CHILDREN, Etc., Etc.

Vomiting in General is a reflex act due to an irritation either within the stomach—whether the irritant be introduced as such, or the irritation proceeds from over-distension of the organ or fermentation, decomposition of food—or without the stomach, the sympathetic variety.

Vomiting of Pregnancy is an example of the latter part.

A supply of *pure* pepsine, or any or all the gastro intestinal digestive principles, fails to remedy the trouble. Why? Simply because this *functional derangement* of the GASTRIC SYMPATHETIC SET OF NERVES *requires that the remedial agent shall be especially addressed to this portion of the nervous system.*

Realizing this fact, I have prepared a compound **SACCHARATED CHLORO-PEPSINE**, in strict harmony with the pathological indications to be met, as may be attested by a perusal of the formula given below.

The Indigestions.—Indigestion, when due to deficiencies of gastric secretion, atony, or hyperæsthesia, always demands an artificial aid to digestion, in addition to regulation of diet. Pure saccharated pepsine has been used until lately; now, however, it is further reduced in strength by the partial substitution of pancreatine, the intended action of which is prevented, *since pancreatine itself*, as the physiology of digestion plainly teaches, *is decomposed by gastric digestion*. My compound not only supplies the necessary amount of pepsine, but also the *Cerium*, which, acting as a sedative tonic, overcomes the hyperæthesia of the gastric nervous supply, and hydro-chloric acid (the normal acid of the gastric juice) is generated within the stomach by the liberation of chlorine from the lime (oxychloride).

Further, the *Saccharated Chloro-Pepsine* has a very powerful and instantaneous influence in stimulating the secretion of saliva, which flows in abundance the moment the compound is placed upon the tongue. The importance of this in relation to the digestion (partial) of the starchy elements in cases of weak digestion of this class of aliment should not be overlooked.

I believe my preparation is *greatly superior* to all other compounds in the market, and to simple saccharated pepsine. Only a short time before the profession, IT HAS GAINED GREAT POPULARITY.

Testimonials received from very eminent members of the Profession attest its superiority.

FORMULA.

	gmm.
Pepsinæ Porci	**140.005.**
Cerii et Calcii Oxychloroxalat	**77.758**
Sacch. Lactis	**ad 373.241**
m Sig., **for Adults**	**10 to 15 grains a dose.**
for Children	**1 to 10 grains a dose, according to age.**

It is intended to restrict the sale of this preparation to physicians' prescriptions and orders, so that I shall rely on the profession to test its efficacy and and give it support.

PUT UP IN ONE OUNCE BOTTLES.....PRICE $1.00.

PAREPARED BY

BENJ. W. DYER, Manufacturing Chemist,

160 Fourth Avenue, corner 31st Street, New York City.

GENERAL AGENTS,

FRASER & LEE, Wholesale Druggists, 20 Beekman St,. N. Y. City.

Finger Stumps. By H. C. Fairbrother, M. D., of East St. Louis.

There are some features about finger stumps which do not belong to the general subject of stumps. Surgical amputation of the finger is a comparatively rare operation. Amputation here is generally performed by machinery, railroad cars and such like, and all that remains for the surgeon to do is to finish up the job by a little nipping and trimming. Hence flaps are rarely obtained, and as a consequence, more cicatricial tissue is met with in proportion to the size of the stump than elswhere.

Great importance always being attached to the length of these stumps, the bone is often so sparingly removed that it can never be covered, but thinly, by soft parts, with the inevitable result of permanent tenderness. The finger bone is usually cut off with plyers, and sometimes very poor ones, by which it is more or less split and crushed. This is necessarily followed by suppurations and the discharge of spiculæ for many weeks or months after the operation. The finger stump is more exposed to vicissitudes of weather, more exposed to view and to contact with external objects than any other stump, and it is therefore more important here than elswhere to avoid every morbid condition to which stumps are liable. These are some of the features which place finger stumps, to a certain extent, in a special group.

Now take a finger, that, by coupling cars or other work dangerous to the hand, has been crushed off, or so nearly so as to require amputation. When the extremity has been clipped away, the stump will probably present a jagged and split end of bone projecting to a greater or less extent beyond the soft parts, and the skin, it may be, stripped off still further back. In such a case, what is the proper course to pursue? Some there are, who assert that it makes little difference what is done, something or nothing; that it gets along about as well in the one case as in the other. To be convinced of the fallacy of this opinion one has only to pass under review some of the numerous stumps to be met with in such profuse variety in any of our larger railroad yards. There he may observe good stumps and bad stumps, the latter very much in the majority; tapering stumps and club-ended stumps; the pale, bluish stump and the stump so unnatur-

ally red and shining that the owner prefers to keep it hidden from view; the sensitive stump and the stump with but little feeling; the cold stump and the stump that is rarely free from a burning sensation; the neuralgic stump, and the stump that is subject to periodical abscess. And for all these varieties the surgeon is held accountable. This accountability may not be always just but it is sufficientiy so to justify an interest in the study of the subject.

Now, taking the case of a finger injured as referred to above, there are three courses of treatment pursued by different surgeons. Those who follow the teachings of *extreme* conservative surgery, rendered popular by such men as Bryant, place entire reliance upon the healing powers of nature, and so large is the number of reported cases illustrating the value of this treatment that their reliance would seem not to be misplaced. Who is it, indeed, that cannot bear testimony to this wonderful healing power? This physico-vital phenomenon by which useless material is cleared away and every tissue—bone, muscle, nerve, skin—falls into line and does duty in the work of repair, at the drum beat of what we are pleased to term nature.

In the case of the fingers torn or cut off by accident it is held that the process of granulation alone may be relied upon to cover the stump, though the bone be somewhat projecting. If these granulations fail to encase the entire extent of exposed bone, the remaining portion will be soon chiseled away by necrosis, and in a much better style than if done by the plyers. I have often had occasion to observe this beautiful process of granulation, creeping out upon, and finally enveloping denuded portions of bone.

A few years ago a man came to me on the street with a finger crushed so nearly off, about the middle of the second phalanx, as to be easily snipped away with scissors. The bone extended perceptibly above the soft parts. He was directed to come to my office in the evening for its removal. He failed to come, however, until after three or four days, when he merely wanted the finger dressed, being stoutly opposed to any kind of a "surgical operation." He continued, from time to time, to return for dressing. Granulations gradually enveloped the bone, and, after a period of three months, a very fair stump was turned out.

As a rule, however, the stump which results from this extremely conservative mode of treatment, has some undesirable

features. It is apt to be slender and pointed, with a large area of cicatricial tissue, and this tissue being drawn tightly over the bone is easily abraded, and when abraded, slow to heal and painful to endure. One of the most desirable attainments in every kind of surgical operation, is to obtain in the result the least possible amount of cicatricial tissue. This tissue is the poorest of nature's patchwork, and a bad substitute for true skin, yet the surgeon must accept it for what it is worth; for when a portion, however small, of true skin is destroyed, there is no power in the universe to replace it. The adjacent skin may sometimes be drawn upon sufficiently to close up the breech, but no new texture is ever manufactured. The hand that guides an infinite system of planets and paints the petals of the primrose, is still when the delicate texture of true skin is to be repaired. Cicatricial tissue is either as good as an omnipotent Providence saw fit to make, or as good as a Providence not quite omnipotent, could make.

Another course of procedure without regard to the finger in question, is to remove the bone down upon a level, or a little below a level with the soft parts, without attempting, however, to obtain flaps. This is the course pursued by the majority of surgeons. It is an easy method of operating, spares the length of the finger and generally results in a passable stump, and sometimes a first-class stump. The third form of treatment is to operate with sole reference to flaps. It is to consider a perfect stump of greater value than the length of the part sacrificed in order to obtain it. It aims to avoid even the slightest amount of cicatricial tissue.

In other cases where the finger is fractured, but not torn off, and especially where the fracture is compound or comminuted, or both of these, the stump which may be obtained by a good amputation, is generally better than the finger which remains after the fracture has been healed. The finger bones are so short that the joints next the sight of fracture are almost necessarily involved, even though the fracture be neither compound nor comminuted, which is a very rare occurrence in the finger. If the joint escape dislocation and rupture of its synovial membrane, it will surely be involved in the inflammation which accompanies the union of the fractured bone.

The effect of this inflammatory process is often so grave as to entirely destroy the motion of the joint; and even more, it glues

the tendons to their sheaths, and binds the sheaths together in a bundle, thus doubly insuring the stiffness of the finger; and a finger that is stiff, even though it be at but one joint, is often of less value and more annoyance than a good stump.

During the last six years twenty-one cases have come under my care, of injury to the fingers resulting in amputation. Eighteen of these were treated by cutting away the bone with plyers down into the soft parts and leaving the stump to heal by granulation. In one the projecting bone was allowed to remain, as related above.

In two cases the bone and soft parts were cut away to such an extent as to give perfect fitting flaps.

Nearly all these cases are in men who work about the railroad yards and rolling-mills in East St. Louis, and are still under my observation; and the only two stumps that I am truly proud of are the two where the flaps were obtained. These are covered with healthy skins, for which cicatricial tissue is but a mere apology. They look better; they are less sensitive to cold, or to contact with external objects; they are free from neuralgia and every morbid condition.

Whatever method, however, of operative procedure is selected, there is another element which exerts more or less influence upon the final condition of the stump, viz.: the after treatment. "Now what is the best thing to put on this?" is the question that will be asked, if an application has not already been ordered; and this question has been asked the medical profession ever since there was such a profession, and the answers to it have possessed that beautiful lack of agreement characteristic of the profession. This question is asked to-day with as much force and, it may be, as little answer, as it has been through all the centuries, and this very question I would like to ask this society this afternoon: In case of an open wound, what is best to put on it? It might reasonably be supposed that the germ theory, as developed and confirmed during the few years past, would have much to do with the answer to this question; but does it? The germ theory, viz.: that putrefaction takes place only in the presence of living organisms, has been accepted by the majority of the best surgeons of the world, and out of that theory has been born the antiseptic treatment; and by anti-septic I mean anti-germ. This may, indeed, have put a more rational phase on ex ternal applications. They are called antiseptics, and

their avowed object is to keep out or kill out the germs. It is now the battle of the bacteria; and concerning the manner in which this battle is fought in Europe, Dr. Hodgen, after some travel and observations there, rather deploringly remarks: "One practices isolation, another ventilation; one leaves the wound open for the escape of the enemy, another bars the paths of entrance. One washes and scrubs, another plasters and daubs. All seek the same goal, but by a variety of paths." It thus appears that the matter of external application is still one of speculation and experiment; quite as much so, it may be, as when in years gone by, the pioneer medical society discussed the relative healing properties of coon's oil and bear's grease.

In the selection of an application for an open wound there are three objects to be had in view. In the first place, the application must be a germ destroyer. For, to ignore or deny the influence of germs in the production of putrefaction, after the convincing demonstrations of Pasteur and Tyndall, would simply be an exhibition of folly. And equal would be the folly to deny the power of certain agents in the destruction of these gems, as illustrated and practiced by Lister. In the second place, it should have the property of coagulating the albumen on the surface, and in the mouths of the vessels, thus mitigating pain, and acting as a bar to the process of absorption. It must also possess the power of destroying the products of putrefaction; for from this source alone comes septicæmia. Carbolic acid, chloride of zinc, the alkaline sulphites, and various other agents have been recommended as fulfilling these requirements. Carbolic acid probably holds the highest place in the list of antiseptics. Lister's antiseptic dressing is nothing more than a skillful application of this agent; and there are many other ways of applying it with equally good effect. It is not to be denied, in this connection, that many fresh wounds will progress perfectly well, and to a favorable termination, without the help of any of these agents; but the more important question is, in a case where destructive putrefaction has occurred, how far the skillful use of any of these applications would have contributed toward the prevention of this unfortunate result? Amputation of the finger has not unfrequently terminated in putrefaction, septicæmia and death, and any remedy of demonstrated value in averting this terrible disaster should be cherished by the profession.

I would not leave this subject without a brief reference to

the use of electricity in certain morbid conditions of the stump; and by electricity here, I mean faradization. There are three of these morbid states to which electricity is applicable. The first and most notable is neuralgia. This neuralgic form of pain often manifests itself soon after the finger has been amputated. Intense pain will be complained of when there is no symptom of inflammatory trouble; or, it may occur at any time, for months or years after the stump has healed. In either case electricity will prove the most efficient remedy. Also, there will appear instances where the stump is abnormally susceptible to cold, where it is always below the temperature of the other fingers; faradization, by increasing the nervous and vascular supply, and thereby the nutrition, will permanently relieve this annoying condition. In other stumps there will appear a want of proper feeling, a sensation of numbness that is continually attracting the attention of the patient. In some cases this condition will be greatly benefitted by electricity.

DISCUSSION.

DR. SINGLETON:—I wish to remark briefly on the matter of carbolic acid, and to say emphatically that I regard it as a great public nuisance—this is my private opinion publicly expressed. Our board of health used it last year, with a view to keep yellow fever out of Paducah. A number of barrels of this stuff were scattered around, and for severals days an effect was produced which caused a great deal of headache among our people. When I am told that a thing which produces headache to that extent, will prevent disease, I am very much inclined to doubt it. With regard to an application in the case of the finger stump, I would prefer good wheat flour to any preparation of carbolic acid ever heard of. Let the stump be carefully washed in castile soap and warm water, and then wrapped up in flour, and kept wrapped till suppuration begins, and then washed again and the flour reapplied and there is no treatment equal to it. The remedy is cheap and I endorse it and recommend this Society to try it. There is something very remarkable about the absorbing and healing powers of wheat flour.

For some years past I have been in the habit of using this remedy in the treatment of old ulcers and comparatively new chronic ulcers, assisted by isinglass plasters, occasionally cleaning the ulcers with castile soap and warm water. Many years

ago I was in the habit of using elastic bandage in such cases, but became dissatisfied with it on account of its great inteference with the capillary circulation. I regard a fresh finger stump as any other open wound, and in its treatment we must take steps not only to husband the coagulating lymph but to repair its surface. It it well to moderately restrain the circulation of the surrounding parts, and by all means possible to exclude the atmospheric air. The application should be soothing and non-irritating, and also nourishing. We should imitate nature, Nature is coy in her work of repair, and like a skillful general with a small army in the enemy's country, she prefers to accomplish her work, as far as possible, free from the observation of the enemy. Among her first movements, therefore, in the healing of an open wound, she erects a fortification, a "crust" or "scab" as we call it. If we follow this lesson and adopt a treatment with reference to the production of a good scab we have done the very best thing possible. Nothing in my experience will accomplish this object more happily than good wheat flour. I have long been of the opinion that surgeons washed too much, and keep the stump too clean for rapid healthful repair. Our object should be to protect the healing process in the wounded part, and disturb the crusts upon it as seldom as possible. Do not interfere with the modesty of nature, and allow the work of healing to be carried on in the dark—behind a scab.

Dr. Keller:—I question any efficacy in carbolic acid as a destroyer of bacteria or vibriones. I have information of, and can at any time secure for inspection, a piece of diphtheritic deposit, which has been kept in carbolic acid for months, and to-day it is filled with living moving bodies, vibriones or bacteria, as they may be. This specimen is in the hands of Dr. Younge, of Savannah, Georgia, and he assured me that numbers of physicians had carefully examined it microscopically with him.

If this be true, and I am satisfied it is, what good can be expected of carbolic acid, diluted as it must be to use on living tissue. For my part, I can see but little use for it in dilution, other than to create a smell unequaled in offensiveness by any of the bad odors of a sick room, even though it be that of a yellow fever patient.

My observation teaches me that camphor used on recent wounds is more efficacious, and certainly is the less offensive.

The wild panic which seized upon the people in many parts of the recently infected districts of the South, led them to carbolize everything except food, and even it tasted of it in many localities, for it was sprinkled from the pantry to the parlor.

In one place so great was the panic, and so impressed were the people with the power and importance of using disinfectants, that a man in his hurry scattered a barrel of flour over his premises and took a barrel of lime in his flight with him; and as Dr. Singleton is an advocate of flour as an antiseptic, it may be that the frightened man did the proper thing.

DR. RUMBOLD suggested that crude carbolic acid was not what is known as chemically pure carbolic acid. He suggested to Dr. Keller an experiment that might verify the effect of pure carbolic acid. If he would take urine and place it in a bottle and leave it open for three or four days it would become decomposed. Under the microscope the animalculæ could be seen very plainly, even with a glass of low power, and then if a small quantity of carbolic acid be mixed with the liquid it would have no apparent effect on the animalculæ; but if on the other hand carbolic acid be applied to fresh urine, it would prevent decomposition for days. Carbolic acid is not a corrective, but it will prevent the development of germs. If pure carbolic acid were applied to an already offensive substance, such as a piece of flesh, it would not take away the odor from it or kill all the animalculæ, but if it were applied to fresh meats, it would be retained in as pure a condition as when the acid was applied.

Dr. PRINCE: I wish, Mr. President, to speak on a single point in the discussion. Some gentleman talk as though it were assumed that the treatment of wounds or the efficacy or advisability of a certain kind of treatment depended on the truth or falsity of the existence of germs. This is certainly a great mistake—as much as to suppose that the advisability of the use of calomel depends on the question whether it increases or diminishes the secretion of bile. The question is a practical one—that advisability of a remedy is first found out by experience and observation. Sometimes it might be true that the theory is the father of a remedy, but the applicability of a remedy is afterwards tested by experience.

Several gentlemen have mentioned various things to prevent the occurrence of odor. Does it matter, as a practical affair,

whether a remedy prevents the occurrence of odor by killing or preventing the hatching of animacules or whether it does this by some chemical effects in preventing the formation of some chemical compound? Practically the result is the same. Theoretically one regards the object a germ; another as some chemical agency which by catalysis gives rise to other changes resulting in putrefaction. Practically the germ theory has nothing to do with the question of the remedy. Theoretically it may help us to account for phenomena which some think are better accounted for by that mode than by any other, but if carbolic acid does not kill animalcules it prevents odor and obviates the conditions of animalcular existence—and whether the effect is produced by some chemical influence or not is not to the point.

I simply make this remark in reference to the influence of the germ theory upon the minds of some gentlemen who seem not to see clearly through the subject. To me it seems that the germ theory better accounts for the phenomena than the chemical theory, but it is only a theory.

Now with regard to the dressing of wounds—an unnecessary importance is no doubt attached to a particular form. The Lister dressing, for instance, is a very complicated dressing and a dressing easily applied and removed is no doubt better. Two forms of dressing have been especially referred to—wet and dry. The wet has this advantage that if any septic agency, whether chemical or animal, has got in under the surface the wet will reach it but the dry will not. A dry dressing of a wound, therefore, must be made with a pretty good certainty that a poisonous agency is not already in the wound, or in any of the many folds of raw flesh, which cannot be reached by a dry agent. I think no praise too great for the application of salicylic acid to wounded surfaces, and perhaps no praise is too great for the application of a dry dressing which has carbolic acid in it to wounded surfaces. Both of these are dry dressings. But suppose that you have a gunshot wound which tears the forearm into ragged fragments and you are very desirous to save the hand. A dry dressing will not reach all the parts which must come into a state of gangrene, while a wet dressing will. Then suppose you put this arm into a bath—permanent bath except for the time necessary to change the water, which is but a few minutes. You have here a permanent application which is thoroughly antiseptic, especially if you have a little carbolic acid in the water, making the solu-

tion only strong enough to prevent putrefaction. These fomentary potions lie there in the water and never acquire any odor. And I speak in this positive way with regard to that mode of dressing because it has been under observation and proved to be as represented. Several gentlemen are now in the room, conversant with this case—a gun-shot injury to the form in which the wounded part was kept under water four months, except once or twice a day so long as was necesssary to change the water—the water kept warm by a lamp under observation of a thermometer so as not to rise above a hundred and one and the patient lay entirely without pain while the process went on.

But this may be remarked with regard to the water antiseptic treatment, that it takes longer for pus to displace dead substance than when putrefaction is allowed to occur, and if I am allowed to theorize, I may suppose the effect to arise in this way: when the agencies of putrefaction are allowed to come in contact with living tissue, more exudations occur, and the dead parts are pushed off; but in the antiseptic way of treatment, no such thing occurs, for, whether the putrefying agents are bacteria or chemical, the living part separates from the dead slowly, and only so fast as the natural physiological change in the substance of the tissue may permit, and there is no elevation of heat, and no increased redness along the margin of the wound treated under water, but the physiological color remains the same, while the lacerated surface of living tissue continues to present the surface of healthy granulation as the case goes on.

Where it is impracticable to immerse the part in water, it is practicable to apply water which has salicylic or carbolic acid in it, in weak solution, once in twenty minutes. If I have a wound under my observation, under my control, to which I apply a wet dressing, I make it a point that the water shall be applied once in twenty minutes, and I think, perhaps, some gentlemen have been deceived, in the supposition that they were treating a case with a carbolic acid solution, when they gave directions that it should be kept wet, for carbolic acid leaves water with great rapidity by evaporation, and it may have happened that it wasn't there at all; so that if the case is entrusted to a nurse, he should be one with a considerable degree of intelligence, who will not wash with water that is not antiseptic, and directions should be given, to have water applied once in twenty minutes, so as to be sure that the carbolic acid is always there; and another thing,

the physician should be sure that his nurse doesn't go to sleep. The agents, therefore, which I would emphasize, are carbolic acid, a weak solution, not stronger than four grains to the ounce, the same acid in oil one in eight to one in sixteen, an aqueous solution of salicylic acid; an oleaginous solution of salicylic acid, and salicylic acid as a dry powder.

Dr. Hodgen:—I have been much pleased with the paper on stumps. I am familiar with stumps. I have seen good stumps and bad stumps, cold stumps, blue stumps, painful stumps, sensitive stumps, and with many other stumps that may not be classed under any of these heads. Dr. Fairbrother's opportunities have been unusually good for the study of stumps. I have frequently blundered in the matter of stumps, and saved portions of fingers that were worse than useless. My rule was to save all that would live of a crushed hand, and while I have many times saved useless parts, I have also been gratified to find that parts torn badly have been moulded into comely form and restored to useful function. The conservative plan often condemns the patient to much prolonged suffering. Who can estimate the value of one inch of the index finger and the opposing thumb? I am aware that a good stump is better than a poor finger. I am also aware of the fact that when an amputation has been made, there is less probabilities of unfavorable criticism, than if a deformed and useless finger be left. Yet I never forget that a useless finger may be amputated when it is learned that it is valuless. I shall still continue to blunder on the side of conservatism, and perhaps save many useless fingers, but hope also to save some valuable ones.

I think the first dressing of a torn hand the most important matter connected with the case, and while I cannot astonish you with a new form of dressing, I will briefly detail the course I pursue. I replace the fragments as near as possible, then wrap a thin layer of cotton wool around the wounded part loosely, and moisten it with compound tincture of benzoin, and place the whole hand and fore-arm on a broad, well-padded splint, and leave it until the pain or stink force its removal. I have many times treated badly crushed fingers in this way, and allowed the entire dressing to remain until the parts had entirely recovered. If inflamation runs high and the swelling makes it necessary to remove these first dressings, I find the removal of the cotton and

benzoin a tedious task. In no class of injuries is meddlesome surgery more objectionable than those under consideration.

DR. COMPTON:—In view of the vast range of useful purposes to which the human hand may be applied, and the multiplied frequency of every degree of mutilation in consequence of the many inventions of machinery, the paper just read by Dr. Fairbrother is one of very great importance. It is important to save as much of the fingers as possible. It is not enough that we should practice the most rational conservative surgery in regard to the amount of lacerated tissues permitted to escape the amputating knife, but we should adopt the best rational antiseptic treatment, one that will prevent disorganization and death to the parts that we have left with the hope to retain as stumps, more or less useful.

It then becomes important that we select the best possible dressing for the injuries. I am glad that the antiseptic qualities of carbolic acid has been brought into this discussion. For some time this drug has held a high place among the antiseptic and disinfectant agents; a place which more recent experience is not willing to fully accord to it. For some time I have had serious doubts of it possessing the antiseptic virtues claimed for it, especially in epidemics of yellow fever. My attention was particularly called to this subject by the earnest description of an intelligent gentleman who was a resident of New Orleans at the outbreak of the yellow fever epidemic of this year. His description was that the most liberal use of carbolic acid was made throughout the city; that it was placed in wagons with the water used for sprinkling the streets, and spread as a heavy shower of rain on all the streets; it was liberally used throughout all the apartments of the dwellings, in the back yards, in the water closets, in a word, everywhere; until the atmosphere of the whole city was filled with the disagreeable odor of carbolic acid, to the end that it could be tasted in every article of food or drink that entered the mouth, and yet yellow fever continued to spread the same it would had there been no attempt at disinfection. I have lost much of the confidence I formerly had in this acid as a destroyer of the germs of yellow fever, and while it may destroy to some extent the germs of putrefaction in wounds of the character under consideration, it is liable to prove too much a caustic where the circulation is bad, as in wounds of the fingers. I

greatly prefer as a dressing, those disinfectant remedies containing chlorine. I have used with the very best success, the solution of chlorinated soda, keeping the wrappings of the wound constantly moistened with the solution. The employment of permanganate of potassa in solution, will also remove and prevent the occurrence of unpleasant odors. One consideration that strongly recommends these two last named remedies, is that while they remove all the unpleasant odors that will rise from the putrefying condition of wounds, they leave no disagreeable substitute to offend the sense of smell, as does carbolic acid. With regard to the preservation of finger stumps, in all operative procedures on mangled or lacerated hands, I am inclined to preserve all that can be kept of the fingers, especially of the thumb, and the usefulness of this can be greatly improved if a finger or even a stump can be saved to come in antagonistic relations with the thumb.

Dr. Singleton :—I wish to add my endorsement to Dr. Prince's warm water treatment. I have seen a case lately, where a hand was torn literally to pieces, with a third of the palmer surface entirely detached, yet it healed kindly in four or five weeks, by being kept immersed in warm water. But I can not agree with him as to the utility of adding carbolic acid to the water. So far as the smell he speaks of is concerned, carbolic acid only substitutes one stink for another.

Dr. Jewell, of Chicago :—I have been much interested with the reading of the paper. Passing over the different modes of operative procedure applicable to an injured finger, I wish to allude briefly to the after treatment. I know to what great extent the antiseptic treatment has been carried by Lister. The dressing I have for a good many years been in the habit of applying in cases such as referred to in the paper, consists of a dram of carbolic acid to two ounces of castor oil. This may not be any better than a great many other applications, but it has given me such entire satisfaction that I use nothing else.

MEDICAL HEROISM OF 1878. By J. W. SINGLETON, M. D., of Paducah, Ky.

Lovers of ancient history dwell with rapture on the recital of the peerless valor of Greek and Roman soldiers, as they were marched from one field of slaughter to another, to be crowned with bays of victory or heroically endure the agonies of defeat. They present for our admiration the heroic deeds of Cæsar and Pompey, of Marc Anthony and Brutus, of Scipio and Hannibal, and of Alexander, who marshaled their mighty hosts to glory or the grave on gory battle-fields in search of conquest or of power, that usurpers and tyrants might lord it over the lives and liberties of their fellowmen. The world's vast record book is full of the wrongs that have been perpetrated against the rights of mankind, and the calamities that have been cruelly imposed upon the human family. Though no compliment to modern civilization, it is the truth of history, that society in all ages has given more permanent applause to brilliant bloodshed than to golden deeds of benevolence, philanthrophy and self-sacrifice. Why this has always been so is a question that presents itself to every reflecting mind, and demands the serious consideration of all lovers of our race. It may be the fault of our sinful nature, that the brave soldier rushing to battle and to triumph in a wicked cause, wins greater renown than the faithful physician who falls in front of the fight against pestilence, or the humble priest who ministers comfort and consolation at the gates of death. Some men yet contend, that after all our efforts to humanize and ennoble our kind, we are still in the bonds of selfishness, "and all uncharitableness," without any substantial sympathy or fraternity for each other. But this I do not believe. I cherish an abiding faith in the inherent nobility of mankind. I contend that there is no sin or evil under which men suffer that has not its compensating good in the means of its mitigation or relief. The human family, and especially *educated* humanity, is much better than bitter-hearted misanthopists pretend to believe, as the recent history of our great and beloved common country abundantly testifies. That men have in a great measure ceased to glory in deeds of violence, and the sad conse-

quence of misdoing; that they are rapidly binding themselves together "with hooks of steel," for the general good; that through the teachings of divine inspiration and the guidance of a nobler social philosophy, they are slowly recognizing the sublime truth that "God has made of one blood all nations of the earth."

From this heaven-born truth has sprung the universal faith and hope in men for which all lovers of mankind should be devoutly thankful, for its perfect development will constitute an epoch in the dawning of an era in the history of the world, which will lead it to health, safety, joy and happiness; and ultimately to a glorious deliverance from sin and from evil of every kind. We should, therefore, be profoundly grateful to that kind Providence which has permitted us to exist as factors in such an age; an age of the grandest moral heroism, in the midst of events which though they may make men weep, yet cause the angels to rejoice over the nobility of human nature. They tell us of the "golden age," the "silver" and the "iron age," but in the fullness of our hearts, let us call this the *age of human sympathy*. It is the commencement of man's social redemption and the amelioration of the present and future condition of our children and our children's children, to the remotest posterity; in the charmed circle and firm solidity of universal love, as one in a common *faith* and *hope*, a common protection in danger and suffering; and in the ministration of relief, when affliction and sorrow shall come upon us, and our ancient philosphers had but a faint conception of the common fatherhood of God and the common brotherhood of man.

Though Confucius may have dimly shadowed forth the substance of the Golden Rule, four thousand years ago, it was left to Jesus Christ in his "Sermon on the Mount," to give eternal significance to the divine precept, "therefore, whatever ye would that men should do unto you, do ye even so to them." For the last eighteen hundred years, whenever and wherever men have obeyed this God-given injunction, they have been blessed of Heaven and loved by their fellow-men. To-day, the world lies under the shadow of its benign influence, because it was born of God, for the good of the human race! May it live and flourish forever!

There was much that was grandly heroic, and worthy of all imitation in the earliest ages, but contrasting the glories of

ancient days, and even of the middle ages, with the triumphs of the peasants, we find that in the former, the battle was *against life*, while in the nineteenth century it is *for life*. While it was once the pride of Cæsar's followers on the field of slaughter to show how a Roman soldier could do his duty, bravely and to the death, it is the glory of modern civilization to furnish hosts of noble and devoted men, who are willing to labor, suffer and die (if necessary) for their fellow-creatures. St. Paul truly said of the age in which he lived: "greater love hath no man than that he lay down his life for his friend; but were Paul, the last, but not the least, of those inspired messengers, who were sent to bear the glad tidings of salvation to a sin-crushed world, living to-day, he would see that a man can lay down his life, not only for his friend, but for strangers. He would behold gallant and self-sacrificing men and women, full of the holy zeal of God-like philanthropy, throwing themselves with brave and generous impulse into the breach between human life and the horrors of a death plague, and saying to the afflicted, in the language of Pythias to Damon, "if I cannot live to save you, I will die to accompany you." He might see men going from place to place in search of the plague-stricken, and in the exercise of the tender offices of relief, heroically exclaiming, in the words of the brave old Regulus, when he knew that the extremest tortures and death awaited him in the land of the enemy: "It is my duty to go, let the gods take care of the rest;" feeling that it is better to die honorably in the defence of our brother-man, than to enjoy the pleasures of ignoble ease and safety for many years.

The story of the Russian servant whose master's carriage was overtaken by the wolves in the wilderness, is worthy of being recalled here. That poor and faithful serf, in order to appease the rapacious hunger of the wolves even for a time, that his lord's horses might remain untouched, and he saved from a violent death, willingly threw himself among the blood-thirsty animals, and the nobleman was borne to a place of safety. Many of us no doubt remember to have heard of the brave pilot of Lake Erie, who when the steamer was on fire, and swift destruction threatened its cargo of living freight, held fast to the wheel, in the very jaws of the flames, and safely piloted the vessel to the shore, and saved the lives of her passengers, at the cost of his own fearful agony and death. And there, too, the never-

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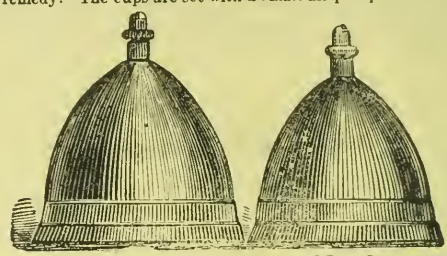

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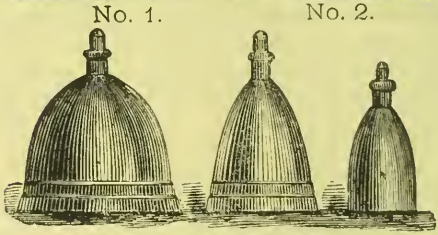

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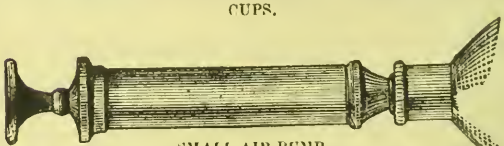

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The recent attacks made upon this drug by one or two physicians apparently acting in the interest of competing houses, has made it a subject of peculiar interest at this time. We therefore append a brief description and history of the remedy.

CASCARA SAGRADO is the Spanish name of the bark of a tree indigenous to Northern California and Oregon, known botanically as the Rhamnus Purshiana. In some localities it is called "Chittem" wood, on the supposition that it is identical with the material used in the construction of the sacred Ark—hence the name Cascara Sagrado (sacred bark). The bark of this tree has long been used on the Pacific Coast among the Indians and old Spanish residents, as a remedy for habitual constipation, and other disorders of the alimentary canal. Its reputation among the inhabitants of this section and the reports of physicians who have used it, has induced hundreds of other practitioners throughout the United States and Canada, to test the new remedy in their practice—the need of a reliable corrective in that most intractable of all complaints, habitual constipation, being universally felt. The testimony of these physicians has, in turn, been published, and has been so pronounced in favor of the new remedy, and the resulting demand for it has been so great, that we found it very difficult to obtain sufficient of the drug to supply our many orders. Many physicians write to us that they must have the Cascara *at any price*, as it has proved invaluable in their practice. One of our firm has visited California for the very purpose of securing a sufficient quantity to supply the rapidly-increasing demand at reduced prices, but the difficulty of obtaining it has precluded any reduction in cost. After very careful investigation, we found that we had secured the entire crop for 1878-9, with the exception of a few small shipments to other manufacturing houses to an amount not exceeding five hundred pounds. A great part of this was of very poor quality, and had been previously rejected by us as unfit for use.

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Until very recently the agents of certain manufacturing houses in Cincinnati and New York have been representing falsely to physicians that our fluid extract Cascara was a compound of Buckthorn Bark (Rhamnus Frangula) and Strychnia, and that no such plant as Cascara Sagrado was known. These statements, caused by jealousy at the results of our energy, and designed solely to injure the sale of this drug during the present season, or until a new crop could be gathered, were not made openly in print, in such form that we could seek protection of the law, but were conveyed covertly by word of mouth to physicians, whom we would hesitate to drag into court as witnesses. The malicious intention of these parties is seen in the fact that they are now themselves freely offering what purports to be a fluid extract Cascara Sagrado *at reduced rates*, and we are informed that preparations containing Buckthorn Bark and Strychnia *have actually been sold* under the name of Fluid Extract Cascaro Sagrado by certain unscrupulous parties.

This practice of compounding imitations of new drugs can not be censured too severely. If it accomplished the end in view of depriving us of the profit resulting from the sale of an article which we have introduced to the profession by a large outlay of time and money, we should be the last to complain; but far more important than any private injury is the fact that these poisonous mixtures, prescribed by unsuspecting physicians, may cause irreparable mischief and weaken faith in a most valuable agent. We urge physicians to examine most carefully the preparations offered to them under this name, and to reject any which do not come from sources above suspicion. Cheap preparations, especially, should be avoided.

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